CLIMATE ART AS DISRUPTION:

MAKING SPACE FOR TRANSFORMATION

by

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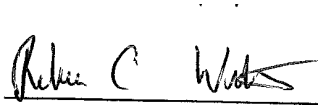

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Abstract

Climate change is arguably the most acute existential crisis of our time because it is deeply interconnected with the health of all present and future human-natural systems. Recently, climate communication scholars have recognized the limitations of prevailing past and current approaches and called for climate communication practitioners to increase their use of creative media in outreach. Through this thesis I address the question, how can engagement with climate art help remove obstacles to meaningful climate discourse and action? Scholars suggest that climate art and affective messaging may help to disrupt climate silence and inaction by making space for visceral responses, fostering culturally accessible and critical engagement, and inspiring openness to non-traditional perspectives and solutions. However, scholarly literature neglects to adequately address the significance of who is producing climate art—who conveys and receives perspectives and ideas though climate art platforms? This gap is important to explore because the slow violence of climate change perpetuates injustice by silencing those who are most affected by climate change, and who challenge the systems responsible by using climate art to render visible this violence and suggest alternatives. Through this thesis, I use decolonial thinking—which identifies and resists patterns of thinking that perpetuate colonial power imbalances—to analyze the role of climate art engagement in breaking climate silence. I explore how elite Global North (GN) decision makers' epistemological domination and efforts to shield the dominant violent systems responsible for climate change variously affect the Global South (GS), youth, and the American public. I draw from scholarly literature on climate communication and examples of projects to show how climate art qualifies non-scientific knowledge as legitimate, empowering American public art receivers to claim their right to speak on climate change. I then explore climate art production through exploratory analysis of interviews I conducted with six Appalachian State University Climate Action Collaborative (CSC) student artists. I suggest that CSC mirrors the youth empowerment of Fridays for Future school strikes by disrupting academic curriculums to make space for students to process and respond to climate change, and to learn while making an impact through hands-on experience with climate communication. Thereafter, I review examples of GS climate art and assess how these works disrupt the slow violence of climate change and build toward just alternatives. Ultimately, I argue that if the American public respectfully receives and foregrounds youth and GS climate art, it may build solidarity around the need for climate action. By taking space for discussion and action, these groups may decentralize climate discourse and decision-making, thereby disrupting dominant systems responsible for climate injustice, and building more equitable futures.

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This thesis is dedicated to Global South and youth individuals and communities around the world who are creating radical and transformative change by breaking climate silence.

I would like to express my deepest gratitude and respect to Laura England and Rebecca Witter for advising me throughout this project. I cannot fully capture what an inspiring and empowering experience it has been to work with these professors. In learning from Professor England over the last two years, I have gained hope that effective climate action is possible. Laura's work with the Climate Stories Collaborative inspired me to take on this project and made the entire thing possible; her critical knowledge and uplifting enthusiasm kept me going. Professor Witter guided me through the world of qualitative interviews and analysis and helped me to authentically understand and appreciate the practice of "writing as thinking." To Rebecca, whenever I write, I now hear your voice in my head suggesting, "by this I mean x, y, and z" or "who is the 'we' here?" I thank both of my advisors for their dedication to the brainstorming and revising processes, and for their moral support through the tough stretches of this semester.

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Introduction

Climate change is arguably the most acute existential crisis of our time because it is deeply interconnected with the health of all present and future human-natural systems. For many climate thinkers and activists, the problem of how to communicate climate change poses an urgent puzzle that is simultaneously intellectual and emotional. Recently, climate communication scholars have recognized the limitations of prevailing past and current approaches and called for climate communication practitioners to increase their use of creative media in outreach (Galafassi et al. 2018).

The Climate Stories Collaborative (CSC) at Appalachian State operationalizes this call for creative media to communicate climate change. I have had the pleasure of participating in CSC events since the spring of 2018 when I transferred to Appalachian State from the University of North Carolina at Chapel Hill to study Sustainable Development. My first semester, I helped to collect audience responses to Climate Justice Month events and to create thank you gifts for the guest speakers and artists, including playwright Chantal Bilodeau and Chief Albert Naquin of the Isle de Jean Charles Biloxi-Chitimacha-Choctaw tribe, some of the world's first climate refugees. These early experiences helped me to adjust to my new settings—I gained a sense of community by collaborating with peers and a sense of purpose through involvement with climate justice work. The following semester, I wrote a narrative on the plight of the Atlantic puffin for Professor Laura England's SD 3610 Issues in Environmental Sustainability class and was startled by how thoroughly I enjoyed the puzzle of tying together climate science, puffin facts, and personal threads from my childhood. The assignment felt meaningful and has had a lasting impact because of the deep level of engagement required for creativity, the direct focus on climate change impacts, and the goal of swaying an audience to reflect on and perhaps act to

address those impacts. Experiencing other student's climate art and reading my narrative at the spring 2019 Climate Stories Showcase, I found myself reflecting on and feeling climate change in an unnervingly intense, both painful and hopeful, way. Interested in further exploring the power of climate art, I asked CSC co-facilitator Laura England if she would advise me on a climate art focused thesis, of which this paper is the final product.

Through this thesis, I address the question, how can engagement with climate art help remove obstacles to meaningful climate discourse and action? In doing so, I get into the "who" of climate communication—whose knowledge counts, who has a right to speak on climate, and who has a right to act on climate? Herein, I use the terms "art" and "creative expression" interchangeably to refer to diverse, conventional and non-conventional forms of expression, including paintings, poems, storytelling, music, short films and more.

Chapter one addresses climate silence, responding to the Nixon (2011)'s questions, "Who gets to see, and from where?... and what perspectives, not least those of the poor or women or the colonized—do hegemonic sight conventions of visuality obscure?" (Nixon 2011, 15). In this chapter, I show the prevalence of climate silencing effected against the American public, youth, and people of the Global South (GS). I draw from scholarly literature on temporally and spatially dispersed and invisible "slow violence" to describe the harms of climate silencing (Nixon 2011). I then discuss the mechanisms of epistemological domination and coordinated non-decision making through which it operates (Sousa Santos 2007; Oreskes and Conway 2010).

Chapter two address the question, how and why does climate art and affective messaging address climate silence among the American public? Here I discuss the affect of climate art reception, I draw from scholarly literature on climate communication, affective messaging and climate art. Climate communication scholars are promoting climate art because it triggers

empathy, reflection, discussion, and openness to alternative solutions. Scholars who promote climate art do so in acknowledgement of western "science" and "rationality" based epistemologies' climate silencing effect. I suggest that by qualifying non-scientific understandings of climate change as valid, climate art can empower the general public who receive it to break climate silence. However, I also found that the scholarly discourse on climate art falls short of addressing, much less foregrounding the voices of youth and marginalized populations who are among the most vulnerable—a function of exposure, sensitivity, and adaptive capacity (USGCRP n.d.)—to climate impacts, and the most acutely affected by the systemic silencing of alternative epistemologies. These gaps are the focus of my second and third chapters.

In chapter three, I address the question, how does the CSC make space for students to engage with climate change? I perform an exploratory analysis of interviews I conducted with six CSC student artists. I discuss how the CSC initiative makes space within busy schedules for students—whose entire lives are and will continue to be shaped by the climate change—to process climate realities, and to gain agency by learning and practicing strategic climate communication through climate art production. I suggest that this space making is important because the climate (non) decision making of today discounts the lives of future—youth and unborn—generations. Through climate art production, the CSC makes space for students to practice climate communication now and equips them with tools to practice climate communication in the future as well.

Chapter four addresses the question, what is climate art in and of the GS? I discuss this question through scholarly literature, as well as numerous examples of GS artist works. Here, I refer to GS as those individuals and communities who have received colonization and

globalization and are now resisting these forces and forging alternative futures (Mignolo 2011, 185). I draw on works of GS climate artists to show how they are using climate art production to represent the injustice of the disproportionate climate impacts they face and the systems responsible to a public audience, and how in doing so they resist the slow violence of climate silencing.

Throughout my thesis, I use decoloniality framework to find the significance of art as a non-traditional climate communication medium that supports and spreads alternative ways of knowing climate change. Decolonial thinking works here because it is a practice which recognizes and resists colonial thinking that reproduces colonial power patterns and hierarchies (Lugones 2010), and I argue that coloniality of knowledge is responsible for climate silencing. The Global North—similar to "the west," understood as those responsible for colonization and globalization—exercises coloniality of power through climate silencing by dominating climate discourse with epistemologies of "rationality" and "science." In this way, the GN excludes voices informed by alternative epistemologies, devaluing and discounting the experiences, perspective, and solutions of the public, youth, and GS whose expertise might challenge norms.

Climate art, as defined here, is an ideal tool for GS and youth seeking epistemological liberation because through its infinite plurality of forms and universal accessibility, it resists the colonial patterns of exclusion and hierarchy. Through climate art, GS and youth art producers meaningfully convey affective and personal understandings of climate change and the need for transformative action to a broad public audience, who in turn may recognize the validity of non-scientific epistemologies and begin to participate in climate discussion and action. In this way, climate art helps to decolonize the title of "climate communicator" to include anyone who engages in climate discourse. Through this thesis, I argue that climate art has the potential to

bring about a two-part transformation: 1) a reality in which everyone recognizes their power as climate communicators and youth and GS are centered; and 2) a reality in which youth and GS lay the path of radical just transition.

CHAPTER 1

Climate Silence

At present, GN politicians, an elite circle of climate action organizations, and corporate media control mainstream climate discourse, silencing the GS, youth, and the American public (Houska 2019, Oreskes and Conway 2010). In this chapter, I address the question, what is climate silence, and what are the mechanisms through which it operates? I describe how the dominant system's silencing of affected voices is a "slow violence" perpetrated to shield dominant and violent systems of coloniality and extractive capitalism that are responsible for the physical violences of climate change (Nixon 2011). I also describe how coordinated political non-decision making and media doubt-mongering via over-representation of scientific uncertainty (Oreskes and Conway 2011), and the privileging of western science and rationality (Sousa Santos 2007) function to create climate silence. I then show the ways in which climate silence has affected the American public, youth, and the GS.

1. The Slow Violence of Climate Silence

Drawing from Nixon (2011), I argue that the collective silencing of climate communication, climate justice, and climate art by hegemonic climate discourse exacerbates the "slow violence" of climate change. Slow violence refers to temporally and spatially dispersed, low-visibility violence that is often not viewed as violence (Nixon 2011, 2). The GN silencing of the GS and youth on climate change builds onto the slow violence of inequitable climate impacts by disqualifying voices that expose violent systems and call for epistemological liberation and system change. Through this slow-violence, the GN is forcibly maintaining coloniality of power.

This oppression of GS and youth voices and knowledge intersects squarely with Nixon's questions "Who gets to see, and from where?... and what perspectives, not least those of the poor or women or the colonized—do hegemonic sight conventions of visuality obscure?" (Nixon 2011, 15).

2. Coordinated Non-Decision-Making

American policy makers have been exercising non-decision-making power over environmental issues for more than half a century. We can see this tactic clearly with climate change policy (or lack thereof). Together, American politicians, corporate interests, think tanks and cold war era scientists, have used manipulative non-decision-making power to protect capitalist norms from the threat of honest scientific questioning and an informed public (Oreskes and Conway 2010).

Lukes (2005) writes that to understand power, one must take into account who controls the agenda of politics, how issues are kept out of the political process, and what efforts are taken to maintain the status quo. Lukes argues that the one-dimensional "pluralist" view of power falls short because it limits our understanding of power to instances where there is observable conflict (19). He notes that advocates of the two-dimensional view move in the right direction by acknowledging non-decision making as power that suppresses demand for change but critiques the view for its exclusive focus on "observable conflict" and behaviorism (23-25). Instead, Lukes writes that one should use a three-dimensional view to analyze power, which understands that one can exercise power without conflict, and that "bias", "social structure", and "cultural behavior patterns" also exert power (25-27). On this, he writes "…is it not the supreme and most insidious exercise of power to prevent people, to whatever degree, from having grievances by

shaping their perceptions, cognitions, and preferences in such a way that they accept their role in the existing order of things…." (28).

The above-mentioned actors (American politicians, corporate interests, think tanks and "bad" scientists) have exercised non-decision-making power to lull the American people into accepting, with minimal questioning, the norms (of exploitative capitalism) that have led to rampant environmental and social violence, and impending climate catastrophe. In *Merchants of Doubt*, Oreskes and Conway describe how for half a century the US government has put off acting on climate change through coercion and distraction, by calling for new assessments, then influencing them to incite further doubt with the help of handful of Cold War scientists and wealthy free market advocates. The same scientists and advocates have worked to discredit conflicting research from top climate scientists with the help of the mass media echo chamber that disregards fact to give equal time and representation to climate deniers, despite the majority consensus (174; 213). Oreskes and Conway argue that these tactics are used repeatedly by the same "small network of doubt mongers," in each instance with the same goal: the protection of capitalist free market norms and continuing dominance of the West (234).

3. Privileging Science, Subjugating "Others"

The GN's foregrounding of knowledge, cognition privileging and "rationality" over other forms of knowing permeates mainstream climate discourse. De Sousa Santos et al. (2007) refer to the discrediting, suppression, and obliteration of alternative ways of knowing, as "epistemicide," a mechanism of coloniality of power and knowledge (ixx-xx). In climate discourse, the GN uses epistemicide to shield the systems responsible for climate change by subjugating GS and youth voices that call for cultural, political, and economic transformation. Furthermore, by replacing culture and lived experiences with a "scientific monoculture of

knowledge," mainstream climate discourse has contributed to the American public's perception of climate change as distant, abstract, and beyond their control. These perceptions have caused psychological barriers that lead to climate silence (Moser 2016). Effectively, subjugation of non-scientific knowledge is another mechanism through which the GN elite exercises the power of shaping public perceptions to prevent them from recognizing grievances (Lukes 2005).

4. Public Opinion and Engagement amidst America's Climate Silence

Despite decades of research and scientific consensus on climate reality and the urgent need for action, the American public has been slow to recognize and mobilize around the climate crisis. The public's lagging response to climate change results in part from longstanding systemic problems of coordinated political non-decision making and media doubt-mongering through misrepresentation of scientific uncertainty (Oreskes 2011). This doubt mongering, combined technical and scientific based communication (Tabara et al. 2017), and extreme polarization in the media has led to psychological and social barriers that contribute to American public inaction on climate change. These barriers include distancing, a sense of doom, and cognitive dissonance (Moser 2016, 355-356).

One of the most significant obstacles in addressing climate change is combatting climate silence by initiating widespread, meaningful, and action-inspiring public discourse on the topic. According to the April 2019 Yale Program on Climate Change Communication survey, 70% of Americans think global warming is happing, over half of Americans understand it is human caused, and 62% are at least "somewhat worried" about the issue (Leiserowitz et al. 2019, 3; 11). Moreover, there is a high level of public concern surrounding climate change. According to a survey of the public in U.S., U.K., Canada, and Australia, "…a majority [of respondents] (54%) rated the risk of our way of life ending within the next 100 years at 50% or greater, and a quarter

(24%) rated the risk of humans being wiped out at 50% or greater" (Randle and Eckersley 2015, 1). Despite this apparent level of concern about climate change as an existential threat, only about 37% of Americans talk about global warming with their family and friends "at least occasionally" (Leiserowitz et al. 2019, 4). In other words, although there is widespread awareness of climate change, surveys demonstrate that most Americans are not engaging in climate conversation.

There are many reasons for this disconnect. According to the Yale survey results, the most common reasons for Americans' climate silence are: "Never comes up," "we agree," "don't know enough," "they're not interested," "too political," "never occurred to me," "can't change minds," "avoid argument," "won't solve it," and "I'm not interested" (Leiserowitz et al. 2018, 17). Such avoidance appears to be entangled in the reality that the majority of Americans feel "helpless" when it comes to climate change (Leiserowitz et al. 2018, 12). Thus, many people hold some level of psychological barriers as defense against this threat that is "…existential to some, deeply disturbing to emotional equanimity in others, and profoundly challenging to the identities of many more" (Moser 2016, 353). Additionally, climate silence resulting from the perception that "they're not interested" may demonstrate an important misunderstanding. Americans' appear to be *under*estimating how many of those around them *are* concerned about and invested in responding meaningfully to climate change. EcoAmerica's 2019 survey results underscore this point: 88% of Americans believe "we have a moral responsibility to create a safe and healthy climate for ourselves and our children…" (EcoAmerica 2019, 1).

Americans not only misjudge the opinions of many around them, but they also underestimate themselves; responses such as "never occurred to me" and "won't solve it" show that many Americans do not recognize themselves as important and necessary players in the

movement for climate solutions. The perception appears to limit public engagement in climate conversation, and therefore the demand for action. A recent study by Matthew Ballew et al. (2019) shows that Americans who discuss climate change occasionally or often are more likely to have awareness of climate change risks and to support climate change policies that fund renewable energy research, regulate carbon dioxide (CO_2) as a pollutant, set strict CO_2 limits on coal-fired power plants, and require growth in renewable energy (Ballew et al. 2019, 8).

5. Discounting Future Generations

Future generations—the youth and unborn generations—are among those who will be the most impacted by climate change. Nevertheless, decisionmakers are exercising non-decision-making because of the immediate costs they will face, disregarding the greater costs that will rise in the future. Youth voices in America are silenced in a number of ways including that 1) those under 18 years old are not allowed to vote, under 25 cannot serve in congress, and under 35 cannot serve as president; 2) most youth lack significant wealth, and at present, money controls politics in the US and other countries; and 3) that GN culture tends to dismiss the knowledge of the young. Nevertheless, over the past decade, millions of youth have mobilized in efforts to gain political power in climate decision-making. For example, children around the world have been filing law suits against their governments, asserting that their countries are failing to protect their rights to a healthy environment and livable future (Parker 2019). However, many governments, the U.S. in particular, have worked to discredit and block these cases. Additionally, youth activists, including Swedish environmental activist Greta Thunberg, have launched the Fridays for Future movement to exercise political will. While some decision-makers outwardly praise the work of these youth, and invite youth leaders to conferences, they have yet to demonstrate through action that this praise is anything more than lip service.

6. Coloniality and the Global South

In the last section, I discussed how dominant systems attempt to silence youth who call for transformation. In what follows, I discuss how the climate crisis exacerbates the injustices of coloniality of power and knowledge in the GN-GS relationship. With respect to climate change, coloniality of power manifests in the GN silencing of the GS, and accumulation by dispossession, defined as one party accumulating benefits at the expense of another who accumulates harms (Acuna 2014). The GN—conventionally understood to be a driver of globalization, extraction, and oppression—is primarily responsible for climate change, and has accumulated wealth in the process, but for half a century now has exercised *non*-decision-making power, citing "uncertainty" and "costs that outweigh benefits." Meanwhile the GS—conventionally understood as those who have suffered colonization, and as a site of resistance and regeneration—suffers the consequences of strengthened storms, famines, and flooding among many other climate disruptions, and is routinely denied meaningful access to GN decision-making spaces (Mignolo 2011, 185; Oreskes and Conway 2011). These inequitable power dynamics continue to play out in the realm of climate action, as a small group of GN individuals and organizations dominate the space and discourse, subverting the numerous voices and movements emerging from marginalized communities (Houska 2019). Where GN allows for GS, and particularly indigenous, voices, it does so in a way that fetishizes the knowledge while proceeding with Western solutions (Houska 2019). Through my research, I found that scholarly literature on climate art perpetuates the coloniality of knowledge and power by generally failing to foreground GS artists.

However, I would like to point out exceptions to this silencing by acknowledging the several scholarly articles I found that do reference Global South climate art. Julie Sze (2015) describes a GN-GS collaborative effort to document the place-based culture and relocation struggles of the Inupiaq whaling community of Kivalina in Northwest Alaska through a creative public-facing online archive. The goal of the project was to preserve Kivalini culture by facilitating a culturally specific relocation, while creating the basis for worldwide solidarity among climate refugee communities and making the struggle visible to a global audience. Indigenous knowledge and storytelling as it relates to documentation of retreating glaciers and declines in biodiversity is highlighted by scholars, including work from Chie Sakakibara (2010) that discusses Iñupiat storytelling as a response to climate change.

One area of this GS-climate art gap that is documented by several scholars is scholarly discourse and mainstream media's reduction and dismissal of GS indigenous knowledge of climate change. Indigenous knowledge, including that of climate change, often takes narrative forms such as storytelling, with stories passed down through generations and enriched through experience and sharing (Simpson 2017). This knowledge is generally either dismissed or portrayed as a romantic complement to GN scientific knowledge. For example, in national and international climate change assessments, there is an emerging call for scholars to draw on indigenous traditional ecological knowledge (TEK) to expand the depth and breadth of knowledge (Williams and Golovnev 2015). However, in practice, when TEK is included it holds lesser authority because it is labeled 'grey literature,' based in part on the assertion that indigenous knowledge is "inaccessible by peer review." (Williams and Golovnev 2015; Parry et al. as cited by Williams and Golovnev 2015). Through such entrenched norms that privilege GN

epistemologies, even when GN scholars allow indigenous knowledge a space in their discourse, it is an inherently lesser one.

Mainstream media coverage of climate change tends to draw from GN climate assessments, and so reflects this scholarly subversion of indigenous climate change knowledge (Houska 2019). Where indigenous people are included in mainstream media discourse, they are generally presented as "intermediaries of emergency," "victims," and "noble environmentalists," and their knowledge as either a supplement pre-existing scientific claims, a socio-cultural niche, or romantic (Belfer, Ford and Maillet 2017, 66-67). To portray indigenous people as "victims," mainstream media strips them of agency, and so their adaptive actions and solutions are often downplayed (66). Essentially, the media presents indigenous people as mere tropes for the devastation of climate change and pairs this mis- and under-representation of indigenous people with committed avoidance of the "...underlying structural root causes of [climate] vulnerability" which indigenous people's actions and solutions illuminate (66). Through this dynamic, media representations of indigenous people and climate change obscure their narratives that entail resistance to coloniality of power. Instead, these media portrayals void the GN of responsibility, presenting climate change as a problem "…*for* rather than *of* [GN] society…" (66).

The GN's key platforms for climate change discourse obscure GS alternative perspectives and forms of expression that reclaim agency in the face of climate change, assign the GN responsibility for the issue, or contradict GN knowledge. Here, I return to Nixon's (2011) question that helps us to center slow violence "Who gets to see, and from where?... and what perspectives, not least those of the poor or women or the colonized—do hegemonic sight conventions of visuality obscure?" (15). This question points to the power tension in the GN's exclusion of GS climate art—the GN elite maintain their discursive hegemony and profitable

exploitative systems responsible for climate change by denying GS resistance and change-makers meaningful access to mainstream platforms where they might change the minds of the public. The other side of this violence is GN audiences' allegiance to mainstream GN platforms that tells GN stories. The discounting of GS knowledge platforms is an exclusion resulting from coloniality of power. In this line of thought, Williams and Golovenev (2015) suggest that the emergence of indigenous grassroots media narratives is an exercise of self-determination and resistance to dominant western discourse and publications on climate change.

7. Conclusion

Through this chapter, I have outlined the ways that dominant systems use climate silencing to enable climate inaction and continuation of coloniality of power. This silencing takes the form of epistemological domination, doubt-mongering, and coordinated non-decision making. Through these practices, the GN aims to prevent the American public, youth, and the GS from claiming political power, realizing epistemological liberation, disrupting business as usual and creating system transformation. In what follows, I describe how affective messaging and climate art can confront this silencing.

CHAPTER 2

Making Space for American Climate Engagement via Affective Communication and Climate Art

In the last chapter I established that climate silence is pervasive throughout the American public. This climate silence is the result of psychological barriers, produced by feeling of confusion and helplessness amidst a discursive landscape riddled by doubt-mongering and scientific, technical, and climate impact-based communication. In this chapter, I ask the question, how and why can climate art and affective messaging address climate silence among the American public? Here I discuss the power of climate art reception (audience)—as opposed to production (artist). First, I draw from scholarly literature on the power of affective messaging to make climate change culturally accessible to the American public. Thereafter, I use scholarly literature and climate art examples, to discuss how climate art can convey climate change to the public in affective and personal, culturally accessible ways. I suggest that by qualifying non-scientific understandings of climate change as valid, climate art can decolonize climate knowledge, empowering the public who receive it to break climate silence.

1. Climate Framings and Conversations

1.A. The Problem with the Knowledge-Deficit Model

The 'knowledge-deficit-model' perpetuates climate silencing because it assumes that the gap between scientists and culture can be bridged by conveying more information. David Tàbara et al. (2017) critique this model on the grounds that it prompts scientists to focus their efforts on filling information gaps rather than integrating knowledge through meaningful solution-based dialogue (36). They write that while building knowledge and understanding is important, the

current format for climate science reporting must change to improve public understanding and inspire climate engagement on the scale necessary to meet the urgent need for climate action. As an example, Tàbara et al. describe the shortcomings of the scientific communication in the Intergovernmental Panel on Climate Change (IPCC) AR 5 report's impact on the public in Spain:

> "Our results for the Spain case study show that the IPCC can be of little use at local, regional or even national levels, when the messages communicated only focus on problems and impacts, instead of supporting new interactions oriented towards producing actionable and tested knowledge on concrete options and solutions. In fact, considering the possibility of HECC [High-End Climate Change] also implies reframing the actual concept of solutions as distributed networks of empowered and willing agents ready to perform" (35).

Instead, to account for the institutional and ethical complexities of the issue, Tàbara et al. argue that climate action should shift from a focus on technological solutions and efficiency to a focus on social and political interactions and transformations. They write that climate knowledge is not so much an information production problem as it is "a public engagement challenge" (Tàbara, St. Clair and Hermansen 2017, 36). This essential public engagement is contingent upon climate communication that stimulates more extensive, more meaningful public discourse. Mike Hulme defines the key components of climate engagement as the following: "1. 'people's perception of the likelihood of extreme impacts,' 2. 'their concern over climate change versus other global problems,' 3. 'their motivation to take action,' and 4. 'the locus of responsibility for the problem of climate change'" (Hulme 2019, 213). Drawing from Ballew et al.s' findings on the connection between climate conversation, risk perception, and support for climate change policy, it is therefore critical to promote conversation about climate change to activate the key components for effective climate engagement. Further, Tàbara et al. (2017) encourage communication practitioners to build conversations that make climate impacts concrete and personal to inspire responsibility and engagement with problem solving, and to shift the framing

of climate conversations from “what is the problem?” to “who is the solution?” (Tàbara, St. Clair and Hermansen 2017, 36).

1.B. Toward Meaningful Climate Engagement

Many researchers now argue that to effectively bridge ideological differences and foster engagement, climate communicators should present messages through open dialogue and discussion (Moser 2016, 352). On this topic, Moser writes “A growing number of studies is available illustrating how dialogic, deliberative processes can open minds, deepen understanding, foster empathy, change attitudes, and increase receptivity to policy alternatives whereas not nearly as much impact could be achieved by simply transmitting information" (352). In this way, discussion on climate change holds potential to break down psychological barriers, effectively growing meaningful personal understanding as well as the sense of collective power necessary to address climate change.

Furthermore, researchers recommend targeting communications efforts to the 77% of Americans voters who make up the center “persuadable” group and are unsure whether effective climate action is possible (ecoAmerica 8). Focusing on individuals who hold moderate or relatively neutral views is strategic as they are more likely to “…withhold judgement and listen to what is said, consider perspectives and empathize, where as those at either extreme are more likely to vilify one another, create polarization” (Moser and Berzonsky 2015, 14). Moser and Berzonsky also recommend elevating the discourse of more moderate Americans because currently the voices of the extremes dominate conversation and media coverage. Raising more moderate voices may help the process of reducing the polarization that triggers psychological barriers and climate inaction (14).

Another key finding in recent climate communication research is the importance of affective (emotional) messaging (Burke, Ockwell and Whitmarsh 2018, 95). Burke et al. (2018) describe the gap between attitude (awareness of climate change) and behavior as a result of messaging that focuses overly on cognitive appeal and neglects the affective. The dominant presence of international decision-making bodies in climate conversations and the prevalence of scientific messaging based on long-term averages and global impacts have created a perception of climate change as a temporally and geographically distant statistical phenomenon that is separate from the human lived experience (Burke, Ockwell and Whitmarsh 2018, 96; Head and Gibson 2012, 700). Increasingly, research is highlighting the capacity of affective messaging to localize and personalize climate change and activate emotional responses when addressing audiences holding climate change opinions that lie in the middle ground (Burke, Ockwell and Whitmarsh 2018, 103).

2. Climate Art

In the last section, I established how and why affective and dialogic climate messaging makes space for the public to engage with climate change, unlike one-way scientific based messaging which often overwhelms and alienates. In this chapter, I discuss how and why climate art is an effective medium through which to convey climate change in emotionally, personally and culturally meaningful ways, thereby encouraging critical reflection and communication (Moser 2016, 350). First, I discuss the history of transformative social and environmental activist art. Next, I describe how climate art supports emotional and personal understandings and conversation. Thereafter, I detail how climate art makes space for public receivers to engage in self-reflection and problem solving.

2.A. Science-Humanities-Art Intersections and Social Change

Creative expression has had a strong presence in social justice movements throughout history. In *A People's Art History of the United States: 250 Years of Activism*, author Nicolas Lampert (2013) discusses examples of artist involvement in movements such as abolition, civil rights, black power, Chicano/Chicana, red power, antinuclear, AIDS, antiwar, anti-globalization, prison-justice, feminist, and suffrage (Lampert 2013, ix). Lampert writes that art relating to social justice falls in two categories: politically engaged art that may exist within museums, and activist art. The latter is sometimes overlooked because it exists on the streets and within movements and is often created by individuals who do not even necessarily identify as artists (ix). Both forms of art has captivated the public's attention and disrupted norms by expressing that which is hard to put into words and by adding greater meaning to rhetorical communication (Lampert 2013, xi).

Environmental works situated at the intersection of the arts, the humanities, and the sciences gained visibility and social influence in the mid-20th century. This was an era of growing "ecological awareness" as emblematized in the 1957-1958 Sputnik Earth observation technology development, the 1968 *Earthrise* image, and the "…explosion of land art and environmental art practices including artists as diverse as Helen and Newton Harrison, Joseph Beuys, Robert Smithson, Mierle Laderman Ukeles and Hans Haack" (Gabrys and Yusoff, 2012, 8). Among the best-known examples of science-humanities environmental works is Rachel Carson's *Silent Spring*. Carson's seminal book exposes the poisoning of the environment and ultimately all living things by drawing for her readers the web of ecological connections that supports all organisms (Thomas and Stein 2014, 82-83). Carson makes the sciences of ecology and poisoning culturally accessible through the use of narrative—she prefaces the book by

describing a dystopian future of ecological devastation, then tell the stories of real-life case studies to show how and why this future may arise if there is not policy change. Carson's book stimulated public concern for environmental harm, triggered the founding of the EPA, and spurred decades of unprecedented environmental policy making (82-83).

In their exploration of the intersection of arts, science, and climate change, Gabrys and Yusoff (2012) detail the work of Gyorgy Kepes, who founded the Center for Advanced Visual Studies (CAVS) at MIT in 1967 (7). Kepes was dedicated to exploring the power and relevance of art-science interactions. He recognized that the scientific advances that granted humans greater control over the environment had also led to severe damages that placed human and environmental health at risk. Kepes suggested that art held the power to raise awareness and restore balance. To guide the work at CAVS, he created 'four fundamental goals' for building a 'system of ecological regulation.' Predictably, the first two goals focus on the science and technological dimensions of problems and solutions and the third goal focuses on public education. The fourth and final goal was Kepes' visionary contribution— "the mobilization of creative imagination and artistic sensibilities toward the development of civic and ecological consciousness on the deepest levels of the personality" (Kepes, 1972c, p. 167 as cited by Gabrys and Yusoff 2012, 8). Through CAVS, Kepes aimed to stimulate intellectual and emotional growth to promote a new era of ecological-awareness (Kepes, 1972c, p. 167 as cited by Gabrys and Yusoff 2012, 9).

Climate art sits at the intersection of social movement art and environmental movement art, as the climate crisis is tied to social injustice and ecological devastation. Because of the polarized nature of climate change, researcher Joanna Nurmis (2016) writes that climate art should strike a balance between the instrumental activist art on one end of the spectrum and the

pure aesthetic experience on the other to create space for substantive engagement. The former can alienate those who are not already engaged and is also dismissed by the art world. The latter can trigger contemplative catharsis rather than urgency and action (512). When these extremes are balanced, climate artworks "…reflect to us what living in the Anthropocene means: art that causes us to rethink our relationship with each other and the environment we inhabit, causes us to ask new questions about what we hold as the main value of our existence, and points to alternative loci of fulfillment beyond consumption and material satisfaction" (512). The climate arts movement comprises works that span this spectrum (Nurmis 2016).

2.B. Climate Art Supports Emotional and Personal Understandings

Part of the power of climate art is that it lends itself to narrative, and narratives are the means through which people make sense of reality in terms of "…how the world can be changed…" as well as "…the individual and cultural cognition that engenders a sense of being-in-the-world" (41-42). Because of this, climate art can convey climate change in ways that spark diverse and meaningful public understandings of climate change by increasing the "cultural availability" of knowledge through "accessible storylines" (Veland et al. 2018, 43). Furthermore, the weaving of hopeful climate narratives into the preexisting cultural narratives that shape individuals' understanding of the world can lead to a sense of security and act as one of the most powerful forces to inspire proactive climate adaptation and action (42).

Works that aim to create emotional and personal connection are increasingly prevalent in the climate art world. In a recent exploration of climate art, Galafassi et al. (2018) note that about half of the climate artworks they reviewed "create a new intellectual and emotional awareness of climate change." These artworks visualize planetary change, and shift perceptions of climate effects and risks, and create space for viewer to work through emotional responses such as

"hopelessness, sadness, loss, grief, and trauma" (Galafassi et al. 2018, 74). By helping people to work through emotional responses, these art initiatives may begin to break down the psychological barriers that foster a culture of climate inaction (Moser 2016, 354-356).

Artist Mark Dion explains that art is a discipline uniquely qualified to convey complexities of climate change and render its risks and damages personal. He told one reporter, "You cannot express these sentiments in politics, in activism, perhaps even not in journalism. Art is an excellent place to express complexity, paradox, uncertainty, ambivalence and hopelessness. The role of the artist as witness can be as valuable as the artist as catalyst" (Dion, interview by Westervelt 2014).

Musician Daniel Crawford's work exemplifies Dion's assertion of this unique quality of climate art. While a student at the University of Minnesota, Crawford composed a song to represent the rise in temperature that has occurred since 1880 while working in the lab of a scientist who studies climate through the analysis of ancient tree rings (Brookshire 2019). Crawford's work uses the voice of an instrument to better emphasize the significance of numerically small changes in mean global temperature, which is otherwise difficult for non-scientists to conceptualize. In the piece, which Crawford performs on cello, each year is represented by a single note whose pitch corresponds with the change in temperature since 1880. Crawford starts on the lowest string to produce a mellow low note, and although the pitch fluctuates to convey interannual variations, the long-term trend is apparent. By the end of the piece, Crawford must shift far up the cello's highest string, producing a sound markedly different from that with which he began. The piece has a melancholy tone and a haunting effect (Brookshire 2019).

Similarly, choreographer Karole Armitage, created a dance piece on climate change with the goal of rendering climate impacts and risks as imminent, concrete, and personally relevant through emotional appeal (Regato 2015). Titled "On the Nature of Things," Armitage's piece was performed in the Milstein Hall of Ocean Life in the American Museum of Natural History in New York City in 2015. When interviewed about the project, Armitage told reporters, "I really wanted to bring emotion to science, because the scientists are so frustrated that they've given all these facts for 30 years and it hasn't made any change on behavior" (Regato 2015). She chose the location because it is a popular site within the museum for both children and adults, and the backdrop of ocean diorama scenes situated the performance in a context with pre-existing meaning to the audience. Further, she told reporters that rather than tell people what to think, she aimed to create space for reflection (Regato 2015). Armitage created an immersive experience for the public to simultaneously visualize and contemplate the impacts of climate change. This dance piece is just one example of the capacity of art to serve as not only a tool for representing complex scientific understandings of climate change, but also for inviting an audience to process and reflect on the complex meanings, connections and cultural context of climate change.

2.C. Climate Art Disrupts Norms and Catalyzes Problem Solving

Recent climate communication research shows the power of art not only to forge emotional and personal connections, but also to depart from prescribing solutions in favor of fostering reflection on various options for actionable solutions (Moser 2016, 351; Nurmis 2016, 511). Nurmis (2016) describes the self-perceived role of some artists, thus:

> "…they want to use art's capacity to 'put something on the social agenda' without prescribing methods of dealing with it, using art's unique ability to compel audiences to reflect on their role in creating a problem and generating solutions, without pointing fingers or demanding specific action" (511).

In this way, art may help people come to terms with the reality of climate change and how their daily activities contribute to it without creating an atmosphere of guilt, blame, or shame that triggers psychological overwhelm and distancing (Nurmis 2016, 501). Artists situate these kinds of climate artworks within an overarching goal of building a culture of understanding around climate change. The arts serve as a bridge between "facts" and "meaning" to empower the public by making space for them to imagine possible climate futures and explore a range of responses (Tyszczuk and Smith 2018, 60). Thus, climate art may empower audiences as climate thinkers, actors and activists.

According to Gabrys and Yusoff (2011), imagining can serve as a kind of "collective social mapping" through which society may see different possibilities for the future and learn embrace the necessary changes (529). It follows that art that encourages critical reflection and imagination can catalyze social change by interrupting routines and traditionally held perceptions, encouraging freedom of thought and the exploration of unconventional perspectives and non-traditional possibilities (Miles 2010, 32; Kagan 2015, 2). Art that deals with political matters and encourages such reflection and imagining may therefore catalyze political engagement and radical transformation. Rancie`re describes this function of art in his book, *The Politics of Aesthetics:*

> *Aesthetic practices that take up political disruption are not simply raising awareness or communicating messages. This is not politics as propaganda. Instead, aesthetic practices operate through a 'radical uncanniness' that realigns, disrupts and reinvents political engagement as material and sensible events* (Rancie`re, 2004 [2000] as cited by Gabrys and Yusoff 2012).

In this way, art may function not only to raise awareness of climate change, but also to disrupt the business as usual mentality by catalyzing the imagination of solutions and political engagement necessary for transformation.

The climate emergency movement has used art to disrupt daily life by attracting attention to actions and the urgency of the climate emergency (Extinction Rebellion: Art Group). In fact, Extinction Rebellion has a dedicated "Art Group" whose posters, flags, banners, creative props, and eye-catching costumes shaped the mood and aesthetic of the movements' April 2019 London occupation. Extinction Rebellion's art often features the hour-glass inspired Extinction Rebellion logo, skulls of humans and other animals, and phrases such as "Rebel for Life." On the organization's website, as well as on other locations on the internet, fellow "rebels" can easily download and print the designs for personal or rebellion use (Extinction Rebellion: Art Group). Leading up to the April occupation, Extinction Rebellion hosted art workshops in London and other U.K. cities. These workshops aimed in part to reach those not normally involved in art and included a discussion on the motivation for the protests followed by break out groups to brainstorm key messages and designs. The workshops were soon followed up by "Paint the Streets" graffiti events in Bristol and London (Rathi 2019). Some "Paint the Streets" projects incorporated performance art aspects to increase impact, including one project in Ireland in which sidewalk painters wore hazmat suits bearing the Extinction Rebellion climate action logo to elevate the sense of risk (Art for Extinction Rebellion 2019).

In Miami, the city sometimes called "ground zero for climate change," artists are working to raise awareness and inspire problem solving through visualizations of possible climate futures (Paddlson 2018). One of these projects, "What Future Do You Choose for Miami," created by a group of artists and technologists from the Miami Murals Movement is composed of a 96' by 14' mural of the city with an emblematic canary in the foreground and an augmented reality film. Viewers can download an app on their phones and point it at the mural to see it transformed into two different futures for Miami: one of climate catastrophe resulting from inaction, and a second

more hopeful and sustainable future of what the future could look like if individuals and communities do act. The goal of the piece is to inspire individuals to reflect on the present, the risk, and the power they hold to shape their future. The Miami Murals Movement strategically emerges from Miami's already rich mural culture (Paddlson 2018).

Another example of interdisciplinary, co-created climate art is David Buckland's U.K. based international Cape Farewell project which he founded in 2001 to "instigate a cultural response to the climate change challenge" (Cape Farewell). From the perspective of Cape Farewell project leaders, "culture is everything," and so art is the ideal medium through which to communicate the urgency and science of climate change on a human scale. Similarly to Armitage's dance piece, Cape Farewell projects aim to join scientific understandings with meaningful personal connections. The project regularly organizes expeditions with both scientists and artists to explore "…arctic science, sustainable island communities, urban regeneration and the Cleantech industries" (Cape Farewell). Creative products from these expeditions have included "…artworks, films, music, books, and poetry" (Cape Farewell).

In 2017, Cape Farewell, cultural producers Shrinking Space, pioneering Virtual Reality & Immersive Content studio Hammerhead VR, and the Environmental Research Group at King's College London collaborated to create a virtual reality experience that included gaming, immersive theater, and detailed graphics mirroring present day reality (Cape Farewell). Describing the experience, the creators write "Through the implementation of behavioural, scientific and technological changes, individuals will transform and de-carbonise their city into a greener, more peaceful neighbourhood, that no longer poses a threat to health nor contributes to climate change" (Cape Farewell). In this way, the project supports individuals in visualizing a

sustainable future, recognizing that it is possible, and learning what actions are necessary to make it a reality.

The Miami Murals and Cape Farewell projects fall within the emerging field of interdisciplinary co-creation of climate knowledge. Such projects offer opportunities to engage critically with climate change and imagine pathways to restore connection and balance between humans and the environment (Gabrys and Yusoff 2012, 8; Galafassi et al. 2018, 71). These creative pathways to communicate and problem solve are more readily suited to the complex political and cultural challenges of climate change than are technical approaches to climate communication; they reach and draw from a diversity of beliefs, behaviors, values, bodies of knowledge, and worldviews in a way that may be critical to identify and implement solutions to bring about transformational cultural change (Nurmis 2016, 223; Galafassi et al. 2018, 71).

3. Conclusion

One of the most significant obstacles to addressing the climate crisis is inspiring public engagement. At present, the majority of Americans recognize climate reality and view it as a threat, yet only about a third of Americans have conversations about climate change with their friends and family. Climate communication efforts should focus on addressing this gap, because conversation on climate change has been linked to higher levels of empathy for those suffering the burdens of climate change and greater support for climate action policies. Scholars are increasingly recognizing the power of climate art to inspire meaningful engagement by connecting the realms of climate science and culture, triggering visceral responses and making the issue more personal, concrete, and immediate. In this way, climate art holds the potential to disrupt business as usual by bringing climate change to the forefront of awareness and resisting subjugation of non-scientific climate knowledge. Further, by portraying visualizations of

potential futures, both catastrophic and resiliently transformed, climate art may engage the public in climate action. By opening space for reflection and non-scientific knowledge, these culturally accessible provocations may empower the public to recognize their roles as climate communicators and problem solvers. That said, the scholarly literature appears to have little focus on *who* is crafting this climate art and impacting the public. In the two chapters that follow, I explore climate art created by youth and GS populations.

CHAPTER 3

Making Space for Youth Climate Engagement: Study of a Climate Arts-Based Learning Community at Appalachian State

The Climate Stories Collaborative (CSC) is a transdisciplinary learning community that aims to train climate storytellers and foster climate discussion through means such as workshops and student art showcases. In what follows, I perform an exploratory analysis of interviews I conducted with six student artists—climate art producers—who participated in the most recent CSC Climate Stories Showcase. The interviews focused on participant's perspectives about their involvement in the making and sharing of climate art. Two key themes that emerged from these interviews demonstrate the benefits and transformative capacity of young people's engagement with climate art. First, engagement with climate art helped students to understand the affective dimension of climate change and think through strategic climate communication. Second, the CSC created a space for students to express themselves on the climate crisis, which many have deep concerns about but may lack time and support to engage with otherwise. Thus, making and sharing climate art created an opportunity for students to improve their personal understandings of climate change through active engagement. This space-making function of CSC has similarities with that of the Fridays for Future and other youth climate movement initiatives in that it provides a platform for students to speak on climate change, a crisis that will continue to shape our lives and our future possibilities.

1. Methods

1.A. The Climate Stories Collaborative

The beginnings of the Climate Stories Collaborative trace back to February 2017 when educators at Appalachian State University who were craving meaningful pedagogical approaches

to climate education brought Jeff Biggers—author, historian, playwright, and leader of the Climate Narrative Project—to campus. In the months that followed, faculty inspired by his visit and eager to foster meaningful climate change learning, conversation, and action across the campus and surrounding community came together to form the Climate Stories Collaborative (CSC) (England et al. 2019, 21). The CSC is a "transdisciplinary learning community aimed at growing the capacity of faculty and students to use a variety of creative media to tell compelling climate stories, including the stories of those who are affected by, and/or taking action to address, climate change. The project began in the spring of 2017 in the College of Fine & Applied Arts but is now university-wide in scope" (Climate Stories Collaborative 2019).

The CSC uses the term "story" in a broad sense to include all forms of creative expression, and recognizes three storytelling approaches in the climate arts "…(1) representation, emphasizing our capacity to tell climate stories; (2) performance, emphasizing our capacity to embody climate stories; and (3) intervention, emphasizing our capacity to change climate stories" (Giannachi as cited by England et al. 2019, 21). The CSC centers stories as a means to connect people to the issue, and ultimately, to "…activate empathy, agency, and collective action" (21). The CSC's work has been well received in Boone, and since its formation has grown to reach several thousand students, faculty, and community members (England et al. 2019)

The project began with faculty workshops led by collaborators from various departments to build a transdisciplinary understanding of climate change and climate communication (England et al. 2019, 21). In the Fall of 2017, fifteen faculty members brought the CSC into their classrooms through climate change lessons and creative projects tailored to their courses, and in December of 2017 the CSC presented their first showcase of student climate stories works. The

Showcase attracted an audience of more than 300 and featured the work of more than 110 students that included diverse mediums such as "…paintings, drawings, graphic design, zines, comics, audio, and video." These student works "interpret, represent, and respond to the stories of individuals and communities affected by and/or taking action to address climate change" (21-22).

Since their initial year, the CSC has expanded, engaging more than 1,000 participants during their April 2018 Climate Justice Month event series featuring guests such as playwright Chantal Bilodeau and Chief Albert Naquin, leader of the Isle de Jean Charles Band of Biloxi-Chitimacha-Choctaw, as well as a second Climate Stories Showcase featuring student climate art in April 2019 (22). The Showcase exhibition and event series featured creative works of more than 200 students from 35 classes across the university. Between six public events and thirteen class visits to the exhibit, the CSC's second showcase engaged more than 1100 students, faculty, staff and community members. CSC co-facilitators report that though the anecdotal feedback from participants suggests that the showcase process and resulting exhibition is impactful, the CSC is interested in a better and deeper understanding of the influence it has on participants (L. England 2019, October 30, pers. comm.).

1.B. Disruption

My initial plan for this thesis project (see Appendix A for a more detailed proposal) centered on the CSC project with the artist collective Dear Climate, which is going to be a public art installation on Appalachian's campus. The installation will consist of a series of signpost trail markers displaying evocative fragments of language gleaned from a wide variety of climate-focused scholarly texts from many different disciplines. My thesis advisors and I organized around this project through the summer and beginning of the fall semester. We created a survey,

went through the Institutional Review Board (IRB) Process, recruited faculty and student signpost interpreters, and began advertising for the launch event. However, in mid-October, for reasons beyond our control, the Dear Climate art installation date was postponed until the spring semester. With the help of my advisors, I quickly adapted my project to instead center around interviews with students who contributed their climate stories artwork to the 2018-2019 academic year Climate Stories Showcase at Appalachian State University ("student artists"). In short order, we secured IRB support for this new direction, and I began planning for my interviews.

This disruption was one of several to which I adapted throughout the course of my thesis project. I disruptively placed evidence of these throughout the body of this in italicized text: 1) my change in project in late October due to factors outside our control; 2) my article for Yale Climate Connection, which speaks to the struggle of confronting fear and anxiety and actively choosing to hope, a struggle I faced throughout this semester; 3) my trip to Charlotte to attend the climate strike with Greta Thunberg for which I rearranged days of scheduling.

Climate change is an incredible force of disruption. Much of this disruption is catastrophic—homes burning, nations drowning, and crops failing. However, through avenues such as art, activists including youth and members of the GS are using the acuity of the climate crisis to disrupt the systems of coloniality that fuel epistemicide and climate injustice, seeking epistemological liberation and just transition. Through my inclusion of disruptions, I aim to highlight the disruptive nature of climate change through both theme and format. While I recognize these vignettes as minute in the face of the devastation and resistance at hand, I hope they highlight the disruptive ills and potentials of climate change. What follows is my first disruption, an excerpt from my initial thesis proposal.

Disruption #1

Excerpt from Initial Thesis Proposal

Dear Climate: Assessing Community Engagement with Public Art as an Approach to Climate Communication

The Dear Climate portion of my thesis will include the following parts: 1) a community engagement event I will coordinate in collaboration with CSC co-facilitators, which will take place the first weekend of October. This guided tour of the Dear Climate signposts will feature faculty scholars and students as interpreters. The audience will travel through the trail system and stop at each signpost where our interpreters will facilitate meaningful engagement with the signpost language and the scholarly texts from which it derives; 2) a brochure with blurbs from faculty interpreters, which CSC will make available for self-guided tours of the installation; 3) research:

> *My research will focus on assessing the event, and includes two groups of research subjects: 1) signpost interpreters (each signpost will have a faculty-student team that will lead discussion of the signpost language), and 2) audience members (including students, faculty, staff, and broader community members). To address my research question, I will engage in the following activities:*
>
> 1. *First, I will interview signpost interpreters, the students and professors who will guide discussion at each signpost. The interviews will focus on interpreters' perspectives on climate communication, their personal experience of the event, and their perspective on their audience's experience.*
> 2. *Second, I will conduct an anonymous (no identifying information will be collected) survey of participants of the guided tour. The survey will assess their perspectives on climate change and their experience of the event.*

1.C. Interviews with Student Climate Artists

This fall, I conducted retrospective interviews with six student artists who participated int the April 2019 Climate Stories Showcase to assess how their creative production and sharing processes influenced their perspectives on and responses to climate change. The interviews were semi-structured, meaning I created a list of questions to cover, featured in Appendix 1, but maintained flexibility, allowing conversation to diverge from the established questions when relevant (Robert Wood Johnson Foundation 2008).

To determine my sample of interviewees, I emailed ten student artists suggested by my advisor and Climate Stories Collaborative co-facilitator Laura England. We were careful to ensure that at least half of these potential interviewees were studying in departments other than Sustainable Development to avoid extreme sample bias. I interviewed the six student artists who first responded to my inquiry. One student responded several weeks later offering an interview, but that point was too late to conduct additional interviews. The student artists whom I interviewed are majoring in English, Biology, Graphic Design, and Sustainable Development, and completed their climate stories works in classes representing a range of academic disciplines, including Anthropology, Art, Communication, English, Sustainable Development and Theater (Appendix A). Interviewees' climate stories works also varied in terms of the creative medium each employed, including painting, poetry writing, film-making, and playwriting.

I conducted my interviews during late October and early November in Belk Library meeting rooms. My interview questions (Appendix B) addressed student artists' experiences of the creative production process and of sharing their work with an audience. During the interviews I audio-recorded the conversation and took handwritten notes. Following the interviews, I listened to the recordings and fully transcribed each. I played each audio recording two to three times prior to completing my analysis. The audio recordings, transcriptions, and notes are stored in University Google Drive storage for data security.

2. Project Descriptions

2.A. Anna Preston (she/her/hers)

Anna Preston (2019), a junior Graphic Design major, completed a project for the spring 2019 showcase, and is currently working on a second project for the upcoming April 2020

showcase. Anna's first piece, *Chief Albert Naquin,* is a painting that she created for Rebecca Witter's SD 2400 Principles of Sustainable Development course for which her assignment was to attend a community event and create a response. Preston attended Chief Naquin's talk, part of the April 2018 CSC Climate Justice Month speaker series, where he spoke on the climate change induced displacement and associated relocation struggles of the Isle de Jean Charles Biloxi-Chitimacha-Choctaw tribe. Preston was drawn to this particular event because climate displacement struck her as an important issue, and she had not had an opportunity to learn about it previously. Preston decided to create a painting for her response because she feels she is better able to process and express ideas through art. She describes the process of painting Chief Naquin himself as having been relatively easy, but the abstract background in which she aims to depict the importance of the island's land and water to him and the tribe as more of a challenge. When Witter asked if she would submit her work to the showcase, she happily agreed. Preston notes that CSC co-facilitator Laura England shared a photo of her painting with Chief Naquin. He appreciated it so much that he shared the photo of Preston's painting with Dr. Heather Stone, a professor at the University of Louisiana at Lafayette who is writing a book about his tribe. Dr. Stone is now using Preston's painting (with permission) in this book, which means a lot to Preston (2019).

Figure 2: Preston, Anna, *Chief Albert Naquin,* 2018, watercolor on paper (photo by Sarah Kenelly)

Preston's (2019) second project, *What You Eat Matters,* is for ART 3302 Idea Lab, a graphic design course with Anna Buckner, and the assignment is built around the Climate Stories Showcase. Preston recalled from England's presentation that because most people are aware of the climate crisis, effective climate communication should focus on engaging the silent majority rather than attempting to persuade the minority of climate deniers. In light of this, Preston created a poster on the environmental and health impacts of animal agriculture, with suggestions on how to subtly adjust diet to substantially decrease personal impact. However, Preston did not stop there, after completing her class assignment, she decided she wanted to transfer the content of her project to a card format, in the hopes of making her work more personal and engaging to the audience. In this way, Preston has begun actively thinking through and practicing strategic

climate communication. She plans to submit the cards to the showcase, and also potentially to scatter them around campus and town to reach a broader audience (Preston 2019).

Figure 3: Preston, Anna, *What You Eat Matters,* 2019, colored pencil and paper (photo by Anna Preston).

2.B. Marcy Vartanian (she/her/hers)

Marcy Vartanian (2019), a senior double majoring in Communication, Journalism and Apparel Design and Merchandising, completed a project for the April 2019 showcase and is working on a second for the upcoming spring 2020 showcase. Her first project, a short film called *Tangier Island: The Disappearing Island,* she completed for her COM 4420 Multimedia Storytelling class in the fall of 2018. Her professor, Lynette Holman, assigned each student in the class to pick an angle and tell a distinct story on Tangier Island based on photos and footage that Holman had gathered and an interview she had conducted with *Chesapeake Requiem* author and journalist Earl Swift (2018) who visited campus in November 2018. When I asked which aspect she chose, Vartanian responded:

> I kind of tried to focus on the human aspect, how it's affecting the people on the island, how the island has changed, what's going on, and how some people don't believe it's affecting them, or they were born and bred there, they're the fourth generation there so they just don't want to move because that would be life altering to them… I thought it would build the sharpest story, because I feel like a story like that, a human connections story, most people can connect with that, not wanting to move even though you're struggling. I thought that could hit home (Vartanian 2018).

Through her project, Vartanian illustrated island residents' attachment to home, and inability to accept climate realities because as biblical literalists, they see themselves as an "anointed" or "protected" people, having survived against the odds for generations. Vartanian also emphasized how much time, effort, and attention to detail she put into the film project, and how proud she is of the result, noting that when she has showed it to potential employers they've been amazed. Vartanian was absent from class the day that the CSC was discussed via a guest lecture by a CSC co-facilitator, so she was not aware of the context until her work was nominated. However, she was nevertheless excited for the opportunity to share her work at and attend the Showcase.

Figure 4: Marcy Vartanian, *Tangier Island: The Disappearing Island,* short film (screenshot).

Vartanian's second project is for her ADM 3000 Styling for the Apparel Industry class, another assignment specifically for submission to the showcase. She and a group of apparel design students created five outfits out of common college waste items like takeout bags, trash bags, and solo cups. They worked with students from a photography class to take photos of the outfits out in nature by the West campus construction sites as a juxtaposition. For this one, she said the goal is to challenge students to rethink their consumption and waste patterns (Vartanian 2019).

2.C. Dustin Hicks (they/their/theirs)

Dustin Hicks (2019), a senior Sustainable Development major, collaborated with three other students to create a performance piece called *It Spreads Like Wildfire* for professor Dana Powell's ANT 3680 Environmental Anthropology course. Their group created four interconnected poems on the theme of wildfire and they also created a triangle art piece to accompany their performance, symbolic of the wildfire cycle. Two of their group members had personal fire experiences—one had their home burn down and one had to run from wildfire during a summer trail work project in California—and so they used these direct experiences in their work. Hicks focused on tying wildfire into global themes of neoliberalism and capitalism, as well as the more positive analogy of "wildfires of activism." Their fourth group member drew from wildfire science and the idea of "re-birth and wildfire as a positive thing." They note that through their interconnections and transitions they aimed to reflect the cycle of wildfire and enhance understanding of climate change by drawing personal connections to the global scale dimensions of climate change (Hicks 2019).

Figure 5: Hicks, back right, during *It Spreads Like Wildfire* performance (photo by Sarah Kenelly)

2.D. Annie McGehrin (she/her/hers)

Annie McGehrin (2019), a senior Sustainable Development major, created two projects for the spring 2019 showcase. Her first project was a Pecha Kucha style narrated photo slideshow, *Home of the Blue Bloods,* which she created to complement a narrative on the plight of horseshoe crabs that she had written for the Showcase in Laura England's SD 3610 Issues in Environmental Sustainability class. She chose to write about horseshoe crabs for the project because she grew up in Delaware, which she describes as "home-base for them." Her goal was to bring attention to the species through her personal connection and the little details that make them special and tie it into the message of "let's keep them around, let's not destroy these awesome creatures" (McGehrin 2019).

For her second project, McGehrin created a pen and watercolor piece, *Climate Pacman*, for her ART 2019 Art for Social Change class. *Climate Pacman* is a series of four watercolor paintings; she used pacman shapes filled with images of anthropogenic destruction and climate change such as deforestation, melting ice, and rising sea levels. Her goal in using Pacman shapes was to make it fun and relatable to our generation through reference to popular culture. However, she also notes the climate change relevance of the darker metaphor of pacman—being trapped in a box, chased through an unstoppable maze (McGehrin 2019)

Figure 6: Annie McGehrin, *Climate Pacman,* pen and watercolor on paper (photo by Annie McGehrin).

2.E. Amerity Head (she/her/hers)

Amerity Head (2019), a senior English, Creative Writing major, created a play, *Goodbye Sunshine,* for the spring 2019 Showcase for professor Derek Davidson's THR 3670 Playwriting class. Dr. Davidson introduced the work of CSC and told the class that few people are using theater or plays to communicate climate change. He did not give the class a required assignment, but rather offered his students the opportunity to create a climate action play on a voluntary basis. Head notes that she was the only one to submit a play that semester, and that she chose to do so because she felt passionate about it when Dr. Davidson introduced the topic. She wanted to make her play "short and easily digestible," and her key message was a cautionary tale against what can happen when society foregrounds certain issues at the expense of dismissing other

more pressing ones. The play centered around a citizen board in Florida, a state heavily affected by climate change, discussing issues they want to bring up to the state government. All of the characters except one are heavily focused on the issue of net neutrality, so when the one girl brings in the issue of climate change and plays recordings from a diverse group of Florida residents speaking on how they are affected by climate change, she is dismissed. Head notes that one of her biggest challenges was to avoid writing a "problem play" that tells people what is right and wrong, and risks pushing people away. She aimed to instead encourage her audience to reflect and form their own opinion on the actions of the characters (Head 2019).

2.F. Kimberly Todd (she/her/hers)

Kimberly Todd (2019), a senior majoring in Biology with a concentration in Ecology, Evolution and Environmental Biology, created a short film, *The Plight of the Bees,* for an ENG 3715 Literature and the Environment class assignment. Todd did not get to attend a CSC co-facilitator guest lecture, but was excited when she later had the opportunity to submit to the Showcase. The assignment was to create a narration and film showing how climate change impacted a system, and Todd chose to look at the relationship between bees and flowers in the Appalachian Roots Garden, a campus garden. When I asked why she chose that system, she noted "I really wanted to look at how does the mutualism that evolved between flowers and bees change as a consequence of the warming climate because bees and flowers are highly responsive to changes in weather patterns, wind, whatever so I was interested in seeing how that might be impacted" (Todd 2019). Furthermore, she noted that in her research as a biology student she focuses on tree swallows, which are not very impacted by climate change. For this project, she was excited to learn about and bring attention to a less charismatic and less appreciated species that is affected by climate change. Todd especially focused on drawing the connection between

bees and humans, showing her audience that without bees, human agricultural systems would collapse (Todd 2019).

Image 6: Kimberly Todd, *The Plight of the Bees,* short film (screenshot).

3. Communicating Climate Change: Emphasizing the Affective

Through their engagement with climate art via responding to climate stories assignment prompts, these student artists spent time thinking through how to effectively communicate climate change. Effective climate communication, as indicated by interviewees, causes an audience to think and feel. All interviewees noted the importance of making their climate change topics relatable, particularly through human connection. They attempted to accomplish this via attention to detail, stories of individuals and lived experience, and/or connection between local and global scale dynamics. Student artists also noted the feelings of their subjects, their personal feelings that arose during the creative process, and their thoughts on how their creative works

might influence their viewers. These themes align with Burke et al.'s (2018) findings on the importance of affective messaging that localizes and personalizes climate change to activate emotional responses and close the awareness-action gap. Student artists' interview responses also aligned with other important climate communication themes such as the importance of conversation and self-reflection in climate communication (Hulme 2019, 213; Ballew et al. 2019, 8; Tàbara, St. Clair and Hermansen 2017, 36; Moser 2016, 352), as well as the power of art to inspire such responses (Dion as quoted by Westervelt 2014; Galafassi 2018; Moser 2016).

Preston (2019) aims to personalize climate change and inspire action through her *What You Eat Matters* cards. She is invested in making this project personal and impactful, as exemplified by her decision to continue beyond her class assignment to redesign the project in card form in order to reach audience members in a more meaningful way. She notes that because cards are a less common art medium in this context, and have personal subtext, she thinks that they will grab attention and enable her to convey at greater depth the particulars of the changes she is asking people to make. In this way, she pairs the cognitive messaging of her informational content with a personal format to increase appeal and accessibility to the audience.

When asked about her focus area for the *Tangier Island: The Disappearing Island*, Vartanian (2019) was quick to emphasize that she chose her focus on residents' resistance to leave the island in the interest of making it a human-interest story that people could connect with. Throughout her interview, she makes multiple references to her perceived importance that the film, and climate artwork in general, "hit home" with people. Vartanian reflects that she herself was really struck by the conflicting nature of life for people on Tangier Island, that they are watching their land submerge while generally unable to accept the reality of climate change and its threat to the place their family has built life around for generations. On this, she said "I

had never heard about this island, I had never known that people felt this strongly about their hometown when it's in such distress... I thought that was very eye opening." Vartanian's work here focuses on the power of individuals' perspectives, stories, and personal struggles to draw attention and empathy to the urgent and painful realities of climate change (Vartanian 2019)

In her fashion design piece, Vartanian (2019) also focused on the personal. She and her collaborators chose to make their outfits out of waste items commonly used by college students, and set their photographs against nature backdrops to illicit personal reflection on the role of individuals in contributing to environmental and climate devastation. When talking about this project, Vartanian again used the language of "hitting home" and "making it click" with people. She said their intended message is essentially, "Hey, this is what it's going to come to… Eventually we're going to be living in such a crappy world that we have to resort to wearing these clothes" (Vartanian 2019). By aiming to put viewers in a position where they reflect on their roles, and imagine potentially catastrophic future realities, this work provokes thought and emotion, serving as both a cognitive and affective "wake-up call."

Hicks (2019), also places great focus on blending the affective with the cognitive dimensions of climate change communication. They emphasized that their goal was to make their poems "visceral, feeling, and intense, while also trying to go really deep in, trying to blend natural science with more of the emotional aspects" (Hicks 2019). They note how although they had known about wildfires, they personally conceptualized it on a deeper level after hearing their collaborators first-hand vivid descriptions "of the smoke and the intensity of it, difficulty breathing type things, the way it makes the sky look, and also the feelings of rushing out of the house and grabbing a few possessions you can, just experiencing watching all of that burn" (Hicks 2019). They noted that by interweaving these personal experiences with natural sciences

on wildfire and climate change, and social sciences on systemic issues, into a cohesive story, they created something more accessible, and impactful than they could have through a traditional academic presentation (Hicks 2019).

Hicks referred to this approach making personal to global scale connections as "microcosm-macrocosm connections," and emphasized the potential of melding these scales to bridge the gap, to make the often seemingly abstract nature of climate change personal and emotional:

> It helps it to be a story that people can relate to because nobody can really relate to 'this is happening to the globe, this is happening to the planet.' Our experience of being a person is so different in scale from that, that makes it really almost impossible to relate to except for very abstractly, and it takes those microcosm examples of experiences that make it more relatable because when you tie in stuff like wildfires and massive flooding to climate change you begin to see the story. Without doing that it's just like 'there's this thing that's happening, and the weather is crazy.' So I think it really helps to make that connection explicit, that's what's really powerful about it. (Hicks 2019).

Their work here to avoid the common tendency of expressing climate change as global scale scientific phenomenon, instead tying those global dimensions to the personal through story-based communication, fits with recommendations of climate communication scholars (Burke, Ockwell and Whitmarsh 2018; Galafassi et al. 2018).

McGehrin (2019) also emphasizes the personal in both of her pieces. In *Home of the Blue Bloods,* she draws on her personal connection, interweaving her story of growing up in Delaware and witnessing the ancient rituals of horseshoe crabs with detailed descriptions of what makes them special and why they are now at risk. Her use of personal experience and detail makes the threat of climate change concrete and emotionally relevant.

With *Climate Pacman,* McGehrin takes a different approach to strategic climate communication and personal connection—reference to popular culture. She notes that she chose Pacman for symbolism because popular culture is accessible and generally fun, so it served as a

perfect mechanism through which to convey the realities of anthropogenic devastation without overwhelming her audience. McGehrin notes that although Pacman is fun, the darker symbolism of being trapped in a box, chased through an unstoppable maze, also provides an important metaphor for the environmental havoc humans are wreaking on our closed Earth system. McGehrin emphasizes how issues such as climate change often cause people to shut down, but that climate art can be a powerful solution to climate change communication because "art is supposed to be freeing and fun, and I think that is still expressed but about meaningful things." McGehrin emphasizes that by provoking thought in a non-confrontational manner, climate art can plant concepts in people's minds and provoke further reflection and conversation, an important theme in scholarly climate communication discourse (Hulme 2019, 213; Ballew et al. 2019, 8; Tàbara, St. Clair and Hermansen 2017, 36; Moser 2016, 352).

Similarly to McGehrin's discussion, Head (2019) also places emphasis on the importance of presenting ideas for reflection and avoiding aggressive or overwhelming messaging. According to Head, the greatest challenge she faced as a playwright was avoiding creating a "problem play" that tells people what to think and risks pushing people away by causing combative rather than reflective responses. On this topic, Head reflected, "it's hard to incorporate climate change into a story without it being obvious, and yet at the same time for the people who are watching it to understand in a way what you are talking about because if they don't get in then they're not going to enact any change on the matter anyway, so the purpose of your play is kind of lost." This is why Head framed her play around the citizen board discussions, it showed a diversity of opinions and suggested their potential impacts, ultimately allowing the audience to think through these and judge the characters for themselves. Essentially, Head focused on finding the balance between respecting the audience's agency by making space for them to form

their own opinions, while guiding them toward meaningful reflection on the urgency of climate change, and inspiring action (Head 2019). Head's goal here matches that of many climate artists, as mentioned earlier, who "want to use art's capacity to 'put something on the social agenda' without prescribing methods of dealing with it, using art's unique ability to compel audiences to reflect on their role in creating a problem and generating solutions, without pointing fingers or demanding specific action (Nurmis 2016, 511). According to Nurmis, this approach prevents blame or shame that triggers psychological overwhelm and distancing (501).

Head (2019) supplemented the space she made for cognitive reflection on the complexities of climate change with a personal appeal to her audience by including recordings representing the voices and personal stories of realistic Florida residents. For example, one recording portrayed a woman who moved to the mainland because a hurricane devastated her home, and another portrayed a man who refuses to acknowledge that his home will soon sink. Here, similarly to Vartanian (2019), Head tackles the complexity of people struggling to make sense of the ways that climate change is affecting their lives and homes. These stories of personal struggle, confronting the prospect of losing one's home, are relatable human struggles.

Head spoke on the personal affective aspects of her work as well. When asked what feelings the creative process evokes, Head (2019) noted feeling discouraged, responding:

> Mainly just kind of hopelessness, the end of the play isn't very optimistic because her petition to include climate change and wanting to bring this up to the politicians gets kind of rejected and thrown under the rug of net neutrality. And when you look around you see that kind of happening everywhere… So people are focusing more on the now than the future, which is completely understandable, it's the culture we live in, but at the same time it's doomed to fail. (Head 2019).

Related to this sentiment, Head also discusses how her work brought climate change closer to the forefront of her mind than it had been previously. By creating a work that aimed to raise awareness of climate change in her audience, she raised her own awareness. However, the

combination of her elevated personal awareness of climate change and recognition of individuals such as those in her play who de-prioritize it due to perceived temporal distance had a discouraging effect.

Todd (2019) similarly focused on the importance of making climate change impacts accessible and relatable. She did so in her film portraying of bee-flower mutualisms in the Appalachian Roots Garden by drawing connections between bee health and human health:

> I was excited to share my video and the story that I was telling to people, because a lot of people don't realize that these small invertebrate species matter so much for us, because many people try to, they always have to tie it back to have this anthropocentric view, and how can species help us, and so it felt good to me that I was able to do that for people, to tie it back to a human perspective like these mutualisms are important and they influence our food industry and our livelihood and, you know, without bees, a lot of people just wouldn't have the resources that we have today. So it was rewarding to be able to tell that story. But also, being a biologist, someone who understands the importance of biodiversity and plant animal interactions, I really wanted to be able to provide that information in a way that wasn't just a bunch of scientific jargon. (Todd 2019).

Here, Todd embraces the anthropocentric worldview of the general public, and creates a story that assigns importance to the well-being of bees and flowers within this mindset. Todd recognizes that humans see environmental issues through the lens of human impacts and speaks to the resultant power of anthropocentric framing to further initiatives like conservation. In addition to drawing connections between the survival of bees and the health of human society, she also works to elicit emotional connection by assigning personalities to the bees based on the various roles of queens, workers, and foragers, "...telling the story in a way that people can relate to, getting people to feel something for the characters in the story...." (Todd 2019). In this way, Todd strategically combines cognitive and affective anthropocentric framing to elicit an impactful audience response.

As demonstrated here, all student artists whom I interviewed recognized various ways that climate art can reach people through its accessible, relatable, and personal characteristics.

Both Todd (2019) and Vartanian (2019) also specifically noted the power of art to engage people in ways that climate science cannot. Todd, a biology major, reflected on the crucial role of creative disciplines in communicating scientific findings:

> Scientists, you know, they make very important contributions to our understanding of natural systems, but ultimately they don't speak the right language. So there has to be someone who can take that information and convert it into a more user-friendly language. And so I do think that creative expression is the way to do that. I think creative expression provides an avenue for taking science and you know culture and putting those together in a way that people can understand and relate to. (Todd 2019)

Todd's reflection on melding culture and science is central to discourse on climate communication and climate art specifically, as scholars are increasingly recognizing the integral role of culture in shaping how people perceive and respond to information about climate change (Moser 2016, 350).

This point about the potential of cultural responses to bridge the gap left by scientific climate communication was demonstrated by a personal experience described by Vartanian, a non-science major. She recalled her response when CSC co-facilitator Laura England gave a guest lecture in her apparel design class—the quick primer on climate science went over her head, but a painting that England shared, in which artist Jill Pelto illustrates major climate science trends (glacial melting, sea level rise, and temperature rise) stuck with her. Vartanian's reflection on being on the receiving end of climate communication informed her understanding of the potentiality of creative forms in impactful climate communication. Hicks and McGehrin also spent time talking in depth about the blending of science and the personal and cultural as discussed above. The interview responses of these student artists demonstrate that participating in the Climate Stories Showcase prompts students to grapple with essential and strategic questions about cognitive and affective dimensions of climate communication that have been identified by scholars.

4. 4. Making Space to Explore and Express Climate Change

The second theme that emerges from these interviews is the space creating function of the Climate Stories Showcase and associated assignment prompts given to students by participating faculty. The students I interviewed expressed their appreciation for having the space to explore topics they would not otherwise have had the opportunity to explore, to engage climate change meaningfully, to engage in creative expression, and to share their work alongside other students in a positive space. Of the six students I interviewed, only McGehrin (2019) and Hicks (2019), both Sustainable Development majors, had completed college-level projects on climate change prior to their climate stories projects, and only McGehrin had previously completed a creative climate change project for a class. These findings demonstrate that, at least for these students, CSC projects created a new and much needed space to engage with climate change. By bringing creative engagement with climate change into academia, and making space for students to learn and express themselves on an issue for which many carry deep concern, within a supportive community, CSC empowers students and disrupts academic business as usual.

Here, I bring in my second disruption. For me, engagement with the Appalachian State Climate Action Collaborative (ClimAct) was the first opportunity I had to divert energy from climate fear ad anxiety into climate action. Through my involvement with the ClimAct, I learned new skills in organizing and climate communication, and gained a community. In the face of climate change, my climate action engagement with ClimAct and CSC communities helps me to find hope and empowerment.

Disruption #2

Balancing Hope and Fear in the Era of Climate Change

(Note: This essay was published online by Yale Climate Connections on October 30, 2019)

Growing up in the era of accelerating climate change means finding a balance between fear and hope. As a 21 year-old college student, I search for this balance through the people I spend time around and work with—including through the Appalachian Climate Action Collaborative (ClimAct). On September 20th, I helped ClimAct host a rally as part of the Global Climate Strike that drew several hundred people to march through our small town in the mountains of North Carolina. From kindergartners to retirees and every age in between, our community really showed up. We drew out the animal life too—a few dogs marched, and some protesters carried larger than life-sized paper mâché representations of some of the species in our region that are losing their habitat with warming, including the giant hellbender salamander. Most of the marchers were college students from App State, including the march leaders who called chants with a megaphone ("no more coal, no more oil, keep the carbon in the soil") and led protest songs in front of our county courthouse and town hall buildings. The feeling of so many passionate people uniting was positively electric; a spirit of hope and possibility emerged.

The journey leading up to that march began last October, when following the release of the IPCC Special Report, Appalachian State University faculty organized a town hall meeting to discuss how our community should respond to the climate experts' call for rapid, transformative change (IPCC 2018). The IPCC Report shook me awake to the very real and pressing reality of climate change. I remember for the first time fearfully recognizing that climate change is devastating the world before my eyes. In that state of panicked realization, I marked the town hall meeting in my calendar, eager to head the call to action. None of us foresaw the size of the crowd that would gather that day—every seat taken, walls lined with people standing—or the movement that would grow out of it.

Over the past year, the shared climate concern that brought so many from our community together at the town hall has blossomed into a thoughtfully structured movement and many positive actions. I have found it enormously gratifying to put the climate science, outreach, and environmental justice lessons I have learned in class into practice through ClimAct. By engaging actively with a passionate community to build climate resilience, I have gained a sense of agency in the face of this overwhelming issue. I have drawn confidence in my ability to organize and faith in the power of people united to meet the urgency of the climate crisis.

While ClimAct has given me hope in the power of collective changemaking, it has also caused me to confront the climate crisis on a more uncomfortably personal level than I had before. I am privileged enough that climate change impacts have not yet significantly threatened my family's finances or physical safety. Previously, my efforts to address climate change consisted mostly of superficial lifestyle adjustments—reducing waste, eating a plant-based diet, and using public transportation or walking when possible. Reading the IPCC Special Report and working with ClimAct has changed this. Although engaging in climate action allows me to feel less helpless, it also means acknowledging the severity of the crisis. For me, this daily acknowledgement has granted the once seemingly abstract issue of climate change a heightened personal relevance and meaning.

Now, a year later, I think about the climate crisis multiple times a day, and I am confronted with the dire nature of the emergency. Frustration and fear clash with my desire to kindle hope. I'm

not alone in this; my generation is increasingly experiencing fear and anger about climate change (Chen 2019; Kaplan and Guskin 2019). I am discouraged by the fact that there are well over 100 climate deniers in Congress despite the 97% scientific consensus (Cranley 2019; Cook et al. 2019) . I am overwhelmed by the IPCC's assertion that we have only about ten years to transform our global systems that are driving climate change (and, by the way, also drive social inequality) or else potentially face the collapse of civilization before I turn 50.

When I consider my own future, my plans are obscured by the looming uncertainties of climate catastrophe. I feel conflicted over graduate school because given the narrow window to prevent the worst of climate disruption, I feel the urgent need to commit my time and energy to climate action. For now, I am scared to even consider having children, because as I struggle with climate grief and anxiety, I do not know how I would raise a young person to navigate this world. And many others in my generation share this concern, the sense that we should deny what is part of the essence of our humanity and biology as part of our climate response (Elks 2019).

I vacillate from hope to fear and back to hope again. Our recent march showed me that hope is contagious. So when I feel the weight of climate change, I think back to these moments of building local and global momentum because they help convince me that if we work collectively in hope, we can accelerate the change we want and need to see. It is from this place that I try to plan my future. While I have struggled with the reality of the climate crisis, I know I must face it bravely and translate my awareness into action. As I recognize that climate disruption is already wreaking devastation and that it will get worse before it gets better, I commit myself to working harder. I am dedicated to joining countless climate activists in doing all I can in the next ten years and those that follow to ensure a safe and beautifully transformed future for my generation and those to come.

Each of the students I interviewed spoke enthusiastically and in depth about the new ideas and perspectives they engage with through their projects. While the students focused largely on the significance of portraying their specific climate stories to an audience, they also reflected on the engaging and affective learning experiences for themselves. Preston (2019) learned about the plight of climate refugees, and the Isle de Jean Charles Biloxi-Chitimacha-Choctaw Tribe in particular. Hicks (2019) gained a more personal and emotional understanding of wildfire through the experiences of his collaborators, and learned about the field of wildfire science. Vartanian (2019) said that she previously lacked understanding of the distress that climate change induced relocation was causing communities, and would never have otherwise learned the story of Tangier Island. McGehrin (2019) noted that although the horseshoe crabs

had long been part of her life, she had previously taken them for granted, and since having the space set aside for research and creative engagement, has gained a new appreciation for them. Head (2019) was able to explore diverse voices and experiences of climate change emerging from Florida to include within her film. Todd (2019) expressed appreciation for the opportunity to branch out from the charismatic and relatively climate-insensitive bird species she that she focuses on for her biology research to explore an important invertebrate species that is sensitive to climate change. Through the process of creating climate artwork to engage an audience with climate change, these students themselves learn about and are affected by climate stories, in "eye-opening" ways, as expressed by Vartanian.

Importantly, these projects not only provided opportunities to learn new stories, but also to engage with climate change and creativity in empowering new ways via participation in a learning community. When asked whether she had engaged with climate change through school projects previously, Head (2019) said no, and that climate change was "something you hear about in the media…. you're not really doing anything with that, it's just something for you to be anxious about and fearful of." The opportunity and encouragement from CSC faculty member Dr. Derek Davidson helped her to exercise agency in the face of climate change through playwriting. She notes that when she attended the Showcase, she was surprised to see "a huge conglomeration of work from students talking about and tackling the issue of climate change," and that furthermore, she had not had many previous opportunities to be part of a campus community.

Todd (2019) also explored new ideas and mediums through her project. She notes that in addition to providing an opportunity to engage with a species affected by climate change, she had never done film work before. Through the project, she gained the experience of hauling film

equipment out to the garden, learning to shoot footage from attractive angles, and figuring out how to create engaging narration and clean voice recordings. For her, this was an opportunity to cross the science-creative discipline and cognitive-affective communication divide, a practice she is very interested in. “I am a crier when it comes to films, and so I have a deep appreciation for the ability of filmmakers to elicit such powerful emotions in their audience. I hope that I can one day do the same. One of the first steps to conserving wild places is to foster a love for them” (Todd 2019).

Hicks (2019) and McGehrin (2019) both explicitly speak to their appreciation for academic space to engage in creative practice. Both noted their love for art, and the struggle of making time in their busy student schedules. On their desire to create climate art, Hicks said, “I had thought a lot about that before and wanted to do it but never had the time to do it because of being in school. So it was kind of nice in that regard, having it be assigned, I was given or forced the time to do it.” They said that although they had dabbled a bit in climate art previously, their climate stories projects were the most intensively they had engaged with it, and also were their first intensive experiences with using narrative components in climate projects. Similarly, McGehrin notes that her climate stories projects allowed her to “delve into” climate communication at a level she had not previously, and that doing so through art was a very positive experience. Furthermore, she notes that for her, participating in the Climate Stories Showcase provides the perfect low pressure opportunity to do something she loves,

> Art for me is really relaxing and fun and I don’t have enough time to do it with school … It’s like when you have a book to read and it’s good for your mind and your soul but you just don't have time for that. It’s like a perfect opportunity for me to express myself but also do it for an assignment and get credit for it and actually make time to do that. I like that climate stories give that opportunity, I like that it’s an option, not forcing you to do that but if you want to get on the creative side (McGehrin 2019).

Preston (2019) mentions that given the option, she happily chose a creative project in Dr. Witter's class because she feels more drawn to creative forms of expression, noting that she can think and express herself more intuitively that way than through academic writing or speaking. Based on these student artist responses, I propose that the Climate Stories Showcase creates an important space not just because creative expression and engagement with stories helps students to understand climate change, but also because it allows creatively minded students to do so in a way that matches their natural inclinations and is beneficial to their well-being in this highly stressful era of climate disruption and uncertainty about the future.

I also propose that these students' experiences with the Showcase were empowering because of their positive experiences of sharing the products of their engagement with climate change. When asked in what ways the creative process was rewarding, all of the students talked about the experience of sharing their work. Within that, responses ranged from Head's (2019) note on being part of a community, to Todd (2019) and Vartanian's (2019) notes that, having not initially realized their projects were for the showcase, the opportunity to share them with an appropriate audience was validating after thinking so thoroughly through how to engage a theoretical audience. McGehrin (2019), Hicks (2019), Preston (2019), and Vartanian all specifically mention that it was nice to receive recognition for their work, and that the positive feedback felt validating. I suggest here that this experience was especially empowering because, aside from Head, all of these students faced some amount of nervousness about presenting their work, but ultimately found that the Showcase was a positive space and experience.

Going forward, both Marcy (2019) and Hicks (2019), unprompted, expressed interest in continued involvement with the CSC, including opportunities to engage outside of class. In contrast to Hicks and McGehrin, Vartanian (2019) expressed that she would actually prefer to

work on CSC projects outside of class, emphasizing that without an academic context and the specifications of an assignment, she could enthusiastically "put her heart and soul into this." She stated that she would love to see the Showcase grow to reach even more students from more disciplines, with more support from the university, and to one day maybe fill the Convocation Center. Hicks graduates in December, but expressed that they would love opportunities to be involved going forward, as they will be staying in Boone. They expressed that, although they understand the limitations in organizing capacity, it would be great to see opportunities for community members to contribute artwork as well. Additionally, the actions of both Preston (2019) and McGehrin going beyond the requirements of their class assignments show their continuing interest in creative climate expression. All but one of the student interviewees are seniors, which I imagine is why more did not bring up future involvement with the Climate Stories Showcase, for which artist participation thus far has been limited to university students. However, Todd (2019) expressed that going forward beyond Appalachian, she is interested in using her drawing, creative writing, photography, and new-found film-making skills to "articulate conservation through an artistic lens." In conclusion, engagement as contributors to the Showcase inspired interest in ongoing engagement with climate.

4.A. Climate Stories, Youth Activism, and Space-making

The Fridays for Future and other youth climate movements emphasize the urgency of the climate crisis, express outrage at the current state of things, and assert the need for large scale system change. In what follows, I compare the space-making function of the Climate Stories Showcase, and the responses and perspectives of student interviews with youth movement functions and discourse. To preface this comparison, I include my second disruption of the

chapter—a short essay on my experience of the November 8th Fridays for Future strike in Charlotte, NC. This essay provides background on the youth climate movement, as well as my personal reflections.

Disruption #3

Fridays for Future: Youth Activism

Greta Thunberg and the Fridays for Future movement has inspired thousands of youth and adults globally. I find their power and energy a refreshing interruption of the aging white men who have historically controlled all public discourse, including climate discourse. Despite schoolchildren's inability to vote, Fridays for Future has helped to 'light the fire of rebellion,' igniting political will for climate action that interrupts political business as usual. Thunberg and other youth activists bring emotion and the personal into conversation on climate impacts, calling out capitalist world leaders at their own conferences for privileging profits over the futures of the young.

Following the work of these young activists has inspired me and many of my peers in our organizing for the Climate Action Collaborative and has motivated me throughout my thesis project. So, when on Thursday, November 8th at 2 p.m. I read a news report that Thunberg would be joining Fridays for Future climate strikers at the Charlotte, NC government center the next day, I immediately dropped everything and made the trip. My plan for Friday had been to meet with my thesis advisor in the morning, then transcribe student artist interviews for the rest of the day, but I sent England, my thesis advisor an email with the subject line "RESCHEDULE MEETING B/C GRETA?" and commenced to making travel plans. At the strike, Charlotte Fridays for Future climate organizer Mary Ellis told the crowd who filled the government center plaza that she and her peers had organized the event in 48 hours after Greta reached out on Wednesday. Evidently, the organizers and nearly everyone who joined that day had something in common, we had interrupted our business as usual in recognition of the pressing urgency of climate change, and the importance of standing together to demand government action.

The event created space for a diversity of voices to speak on climate change, and many of these speakers foregrounded their disaffection with climate inaction and politics, and injustice. We heard from kindergarten students, one who repeatedly told the audience "I'm done with this," and another who said it "I just breaks my heart what people are doing to the Earth." We heard from Fridays for Future and Extinction Rebellion youth organizers who emphasized that for the youth who have watched older generations fail to act, "this is our time," to organize on a massive scale, and to make transformative changes to our economic and political systems.

Several students of color spoke on the environmental justice dimension of climate change—how the systems that produce racism and climate change are linked, how climate change compounds

pre-existing racial inequities, and how the mass-media fails to portray these impacts. One of these students, Constance Knox, emphasized that people of color are interested in climate activism, but that due to economic status and work schedules many are unable to attend the events. In his speech, he called on climate action organizers to plan events that are more accessible to marginalized people.

Thunberg was the last to speak, she began by pointing out that in Charlotte, we stood on colonized land, recognizing the injustices perpetrated in this country against Native Americans and enslaved people past and present. She spoke in tenses that portrayed change toward more just futures as inevitable, with phrases like "this is our future, and we will not let it be taken away from us." She also emphasized the power of hope as an action, reflecting that while she has not found hope in climate change or corporations, she has in people. Addressing the young people, she noted that their voices are just as important as voting power and encouraged everyone to continue pressuring politicians.

The Charlotte climate strike filled me with excitement and empowerment. I was amazed to see the large crowd that turned out and inspired by the passion and agency of the high school students who organized the event. Further, I think it is important societal progress that, as apparent in the strikers' speeches, many youth climate activists are attempting to consider intersectionality, and foreground interconnections between climate change and racism, capitalist exploitation, and coloniality. These discussions show that my generation's climate activism centers around justice and radical system transformation in ways that past Western generations' have not, and in ways that are necessary to genuinely address the issue. In her closing statement, Greta declared, "This is our future, and we will not let it be taken away from us… change will come whether you like it or not." To me, this statement is emblematic of the youth climate movement, it is the claim that we as young people have the rights to speak on climate change, and that we are exercising that right to build a more just future.

One of the things that most surprised me from the student artist interviews was that despite the fact that all of these students care deeply about climate change, when I asked about involvement with climate action and advocacy, lifestyle changes came up the most frequently (Preston 2019; McGherin 2019; Todd 2019; Vartanian 2019). All who mentioned lifestyle changes also said that their involvement with CSC influenced their activities, except for Vartanian who attributed her changes in lifestyle to Appalachian State sustainability culture. This trend stood out to me because lifestyle changes do make a difference, but it is generally acknowledged, including by most of these students, that what is really needed is change to the political and economic systems responsible for the climate crisis. However, this trend made more

sense as students elaborated on the reasons for their focus on lifestyle, and it emerged that their busy schedules and perceived importance of making good grades constrains their activism (McGehrin 2019; Todd 2019; Hicks 2019). Preston (2019) and Head (2019) also talked about their lack of faith in the political system and corporate regulation to make the necessary changes.

Nevertheless, Hicks (2019), McGehrin (2019), Todd (2019), Head (2019), and Preston (2019) all emphasized their belief that the politics of climate change are important. Hicks, McGehrin, Todd, and Head in particular brought up the reality that larger scale societal changes are necessary to ensure a secure future. Preston (2019), Todd (2019), and Head (2019) stated that their involvement with CSC has inspired them to think and talk more about climate change. This is significant because it demonstrates movement toward closing the gap between the 70% of Americans who acknowledge climate reality, compared with the 37% who talk about it "at least occasionally" (Leiserowitz et al. 2019, 4) Additionally, all students noted that in the past six months their political activities and mindsets have been shaped by their awareness of climate change. In fact, Hicks recently was elected for Boone, NC Town Council, and they ran on a platform of climate action and democracy. While none of the students claimed direct causality between their political actions and CSC, all but Vartanian noted some influence.

Hicks (2019) and McGehrin (2019) both believe that their involvement with CSC influenced their engagement with climate activism to some extent. They similarly discussed it as one of many small things that built their commitment, acknowledging the difficulty disentangling specific causes and effects. Hicks has been extensively involved with the Climate Action Collaborative (ClimAct), the local climate movement, since it was formed in the fall of 2018, and notes that one specifically identifiable impact of their CSC engagement is that it has

helped them to think through how to structure the ClimAct art team that they have started. McGherin is also involved with the ClimAct art team.

While there is not a correlation between involvement with CSC and a radical shift to activism among these six students, these interviews suggest that the CSC's Climate Stories Showcase is advancing its goal of creating a space for climate reflection, discussion, and empowering expression (L. England 2019, October 30, pers. comm.). The CSC's work of creating this space parallels in some ways with the Fridays for Future movement. Rather than staging school strikes, CSC's work disrupts standard university curricula which, in these student's experiences, do not make time for climate change projects, much less creative and empowering engagement. By disrupting traditional pedagogies with the enthusiastic cooperation of professors and academic departments to make space for creative engagement with climate change, CSC makes evident to the campus community the pressing reality of climate change. Furthermore, like Fridays for Future, the space CSC creates within this disruption foregrounds and empowers student voices on climate change.

Some reflections from the students I interviewed also strongly reflected the youth climate movement discourse. For example, Preston (2019) notes that a lot of climate artwork, including her *Chief Albert Naquin* piece, function to raise awareness, but that she is now focused instead on artwork that functions as a call to action, which she thinks should be prioritized. She emphasizes that her piece *What You Eat Matters* is focused on inspiring receivers to make changes to their diet, which she believes is the greatest way a single person can make a difference. Here, her opinion diverges from youth climate movement discourse which focuses more on the power of legislation and system change. Head (2019), Todd (2019) and Hicks (2019) put more of an emphasis on political and system scale change in their discussion of

activism. Hicks also focused on the need for system change in his artwork, having used the theme of wildfire to address capitalism, neoliberalism, and the emergent global climate advocacy movements that are a source of hope.

Also, similarly to youth climate movement discourse, several of the students problematized American climate-inaction, and emphasized the urgency of the situation and need for immediate and transformative action (Head 2019; Hicks 2019; McGehrin 2019; Todd 2019). Head (2019) mentioned how she resonated with youth activist Greta Thunberg specifically, "hearing her speak and like her anger especially has just completely changed the tone of the day, it no longer like, 'uh, please believe climate change exists and do something about it,' it's like, 'how dare you, why did you do this to me,' that's hard core." She goes on to note that if people keep foregrounding the present inconveniences of climate action while ignoring the future "it's doomed to fail" (Head 2019).

When asked about her advocacy activities, Todd (2019) noted that she's been meaning to engage more with politics, in acknowledgement of the need for system-level change:

> I've definitely been trying to be more involved with the politics of addressing climate change. Since so many people in positions of power still don't think it's a reality it's definitely our mission as the next generation to try to make a change, because if we don't, there's not going to be much of a future left for the generations after us. So I definitely think it's kind of a basic duty for myself and other people to try to get involved when they can, to be informed about the situation, and spread that information.

Her commitment to being informed and informing others and noting the importance of our generation taking action to ensure well-being for future generations strongly echoes youth climate movement discourse on the urgency and necessity of climate action. Similarly, Vartanian (2019) noted that engaging with the Tangier Island story helped her to realize the urgency of the situation and the responsibility of society to respond. "It just showed while the world's not

necessarily ending, people [are] destroying it...Maybe it's time for us to get our shit together, it's past time."

Ultimately, although the CSC and the youth climate action movement are very different in terms of means and ends, they resonate with each other by interrupting business as usual and creating space within busy school schedules to recognize the urgency of climate change. Both use this space to support students in exercising agency through self-expression in the overwhelming face of climate change. This is important work because younger generations deserve time and space to speak on climate change, as they will be the most impacted.

5. Conclusion

As exemplified by the global youth climate action movement, young people have a growing desire for space to engage with climate change. The CSC at Appalachian State supports students' cognitive *and* affective engagement with climate change realities by making space for learning and creative self-expression within academic schedules and providing positive spaces for sharing. Through their climate stories projects, students also think through how to communicate climate change in strategic ways that inspire their audiences to meaningfully reflect on climate change realities as well. In this way, the CSC decolonizes climate discourse by supporting students in recognizing the validity of creative and affective climate communication and empowering them with confidence and tools to become effective climate storytellers who inspire climate action among the American public. In what follows, I transition to discuss how climate change artists in and of the Global South similarly use art to claim space to speak on climate change.

CHAPTER 4

Taking Space through Climate Art: Representation and Justice in the Global South

Part of this chapter builds from a review of Global South experiences and perspective on climate art. I ask what is climate change art in and of the GS? What kinds of GS climate art exist and what are the major ideas expressed and genres employed? How do GS artists interpret, represent, and respond to climate change? In what follows, I lay the context of GS active resistance to coloniality of power and climate injustice. Next, I explore how climate artists document and respond to climate change-induced loss of place and culture. Thereafter, I explore how GS climate artists call out and challenge systems of slow violence and oppression that underly the inequities of climate impacts. Here, I bring in indigenous climate "artivists" who, in addition to critiquing the above-mentioned systems, resist the oppressive dominance of western epistemologies by sharing indigenous forms of knowing and being in the world. I argue that through the diverse realm of GS climate art, GS voices take space to speak on climate change, render visible their suffering and the systems and institutions at fault, and thereby potentially disrupt unjust societal dynamics to trigger transformation to more just futures.

1. Methods

In my initial searches on climate art coming from the Global South I found many sources from news sites outside the GN mainstream (and a few in mainstream sources), but when I started researching scholarly sources, I came up short. I tried various search terms, combing terms like, "Global South", "Third World,", "indigenous," "Decolonial," "local," "pro poor," "first peoples," "buen vivir," and "transformative," with the terms, "climate art," and "climate stories". While such searches did result in on climate justice movements and Global North

climate art, very few touched on the GS and climate art aspects of my search. For example, a search on JSTOR of abstracts including the phrase "climate change art" returns 2,960 results. When I add the term "Global South" to that search it returns zero results. I am sure there do exist more articles on GS climate art, but because of how challenging it is to find them on mainstream academic search engines I imagine there are disproportionately few relative to the abundance of GS climate are that exists, and the extensive coverage of GN climate art.

For this review, I draw from Nixon (2011), Mignolo (2011), and Santos et al. (2007) to contextualize the coloniality and injustice of GN-GS relations, that affect the creation and sharing of GS climate art. This review consists of my analysis of GS climate art projects featured in online news, climate art initiative websites, and art gallery websites. To find these, I used standard Google searches using the same search terms as listed above. I organize this review around the themes of "place and culture at stake" and "interrupting and reversing slow violence."

2. Resistance to Coloniality

The GS is not only a passive victim of coloniality of knowledge and power. Within the diverse array of persistent epistemologies and movements, many, such as indigenous resurgence, are sites of resistance to coloniality of power; they are efforts of decoloniality. Through such movements the GS is also a space where "global futures are being forged," they are not only accumulating the costs of climate change, they are interpreting and responding to climate change, in a multitude of ways (Mignolo 2011, 184). For example, Nnimmo Bassery (2019) from Nigeria, in an opinion piece in the Guardian, describes the threats of desertification, water stress, ocean acidification, social erosion, and conflict in his home country, and asserts the need to end gas flaring practices and fossil fuel dependencies. Many indigenous peoples, including Pasang Dolma Sherpa (n.d.) from Nepal, are using climate change conversations as an opportunity to

address indigenous rights to traditional knowledge, practices, and land sovereignty that coincide with biodiversity and environmental protection. People of Puerto Rico, as expressed in an article by professor Pedro Caban (2017), are using the highly inadequate aid response following Hurricane Maria to highlight the United States' neglectful and exploitative—essentially colonial—treatment of the territory, its resulting debt and poverty, and the need for system change. Art is a means by which many GS voices are expressing these interpretations and responses. It functions as an open space for reflection and self-expression, and a platform beyond the realms of GN domination.

3. Place and Culture at Stake

In what follows, I return to the questions of what kinds of climate art exist and what are the major ideas expressed and genres employed? And how do GS artists interpret, represent, and respond to climate change? Here, I draw on GS climate art that documents and responds to the slow violence of losses and potential losses of place and culture due to climate change. These artworks help communities to process and render visible consequences of climate change and coloniality through engagement with topics such as forced migration and destruction of land, water, biodiversity, and community. Methods of portraying loss and potential loss include representations of crises that have occurred or are occurring, imaginings of future dystopian realities or tragedies, and ideas of the sacredness of what humanity stands to lose.

3.A. Responding to Loss Through Storytelling

The theme of loss emerged across the numerous works I reviewed. Loss is evident in stories of species extinctions, sea level rise, land erosion, and displacement. GS Artists respond

to losses through a variety of mediums, all of which enable them to tell stories. In this way, artists are able to preserve connections to land and culture, and render visible climate destruction.

Indigenous epistemologies often recognize the deep interconnections between land and culture. In "Land as Pedagogy," Simpson (2019) describes Nishnaabeg learning as a lifelong process, wherein Nishnaabeg people learn from the land and engage in relationships of reciprocity. Simpsons emphasizes that Nishnaabeg use storytelling to engage with, expand upon, and pass on the lessons learned from the land. Because of the deep interconnections between land and culture, Simpson advocates for re-connection with land to resist colonialism and spur indigenous resurgence (117). Because of the epistemological and cultural significance of land among indigenous communities, when climate change threatens land it also threatens identity. To cope with this threat, indigenous communities are using methods such as storytelling and multimedia archives to understand climate realities, maintain connections to land and culture, and raise awareness.

One example of this is Iñupiat storytelling Point Hope, Alaska, which reveals and responds to their "… changing physical and spiritual landscape" (Sakakibara 2008, 456). Most of the Iñupiat whaling community resettled from the "Old Town," composed of homes built on whale jawbones, to the "New Town" in the 1970's due to the rising sea (456). Pamiuq, one of the older community members who had remained at the Old Town, notes that he can hear the ocean getting closer each day, but that he still does not want to leave, "I don't have anywhere else to go… This [place] is all I am, and this is my home, nothing else" (457). As shown in this quote from Pamiuq, Sea levels rise in the Old Town threatens Iñupiat cultural identity and spiritual relationship with the land (457). The threat of this loss of place is compounded by climate change induced changes in the populations and migration patterns of whales that hold

subsistence and cultural significance to the community (457). Sakakibara notes that most of Alaska's climate refugees are indigenous people (458). Sakakibara writes that storytelling traditions help the Iñupiat to make sense of the changes, and connect people to place, each other, and their environment, and maintain the vitality of their culture.

The Inupiaq whaling community of Kivalina, another indigenous community in Alaska, is using collaborative socially engaged art to manage the strain of relocation. The Kivalina community is partnered with Re-Locate (n.d.), an ethnographic artist collective, to document their traditional land and cultures, and to initiate their relocation themselves as a community led effort (Re-Locate Kvalina n.d.). The documentation will take place on an artistic online platform to enable sharing of original "…documents, studies, texts, photos, and videos…" that documents Kivalina culture and past and present climate impacts and relocation attempts (14). Through the self-led relocation aspect of the initiative, the Kivalina community and Re-Locate mobilize the documentation to ensure that their new place is built around culturally specific planning and architecture (Re-Locate Kivalina n.d.). Through online documentation, the project makes visible "the social, political, and environmental issues related to relocation." The project helps a global audience to see that homelands are at stake for vulnerable communities as temperatures rise (Re-Locate Kivalina n.d.; Sze 2015).

Photographer Yungdrung Tsewang et al.'s (2019) photo essay, or 'digital storytelling project' documents the "social, environmental, political, and economic transformation" of the high-desert communities of Mustang, Nepal (Tsewang et al. 2019). The Mustang communities have little political power due to their geographic isolation and "under-developed" status. They have received consequences of globalization and development initiatives such as the construction of nearby major roadways that damage historical trade routes and sacred religious sites. The

stressors are now exacerbated by climate change impacts that threaten Mustang livelihoods, community integrity, and cultures of "plural medical systems," and religious traditions (Tsewang et al. 2019). As Tsewang et al. talked to community members, the Tibetan phrase, "kyidug manyom" came up repeatedly. They write, "the phrase translates to an 'imbalance of happiness and suffering,' and was used in reference to issues of cultural and linguistic loss, the decline of Buddhist monastic education, and the increasing number of family members migrating abroad" (Tsewang et al. 2019). This uncertainty defines the experience of many marginalized communities in the climate change era.

Tsewang's (2019) photographs and their detailed captions document stressors as well as traditions and place. Several images depict the effects of unpredictable climate change weather patterns on the high-desert communities, such as drinking water shortages, and flooding and soil erosion cropland damage. One image shows erosion in the village of Ludak where half of the agricultural fields have washed away. Another image shows the road construction projects running through ancient agricultural and sacred landscapes. Others show the harvest of traditional buckwheat crops, harvest celebrations, and wedding ceremonies. Through this photography project, Tsewang et al. make visible the rich place-based culture of the marginalized Mustang communities, as well as the ways in which development projects, globalization, and climate change threaten their place and culture.

Bangladeshi photographer Pobal Rashid's (n.d.) work documents climate change impacts in his home country, one of the most climate vulnerable countries in the world. Bangladesh experiences "tropical cyclones, river erosion, flood, landslides, and drought" under normal circumstances, and now these are all increasing in intensity and frequency because of climate change. Experts estimate 18 million Bangladeshis will be displaced from sea level rise alone in

the next 40 years, with most migrating within the country, creating major national issues in work and housing (Rashid n.d.). His project "River Delta Crisis: Bangladesh" documents "dramatic coastal and river erosion that is destroying lands and homes" (Rashid n.d.). In one photograph he shows Shak Hawladar, a 95-year-old man, standing on the steep bank that is left after river erosion took his land. In another he shows a man paddling a banana raft through his flooded village of Satkhira. He also portrays a Bangladeshi family sitting on their home's roof, trapped by the flooding, and a man named Ayub Nabi holding his son on the site where their home stood prior to the river Meghna flooding. To show the displacement that result of this flooding and land loss, Rashid (n.d.) presents images of a long line of villagers on their way to Dhaka in search of better living, as well as wage-workers in Dhaka sleeping on the roadside, with a note that many of the homeless there are environmental migrants.

In his photo captions, Rashid (n.d.) frequently uses the names of people, villages, and rivers. This naming challenges abstract perceptions of flooding and forced migration by putting a face on those affected and clearly depicting what they stand to lose. Further, he illustrates and humanizes the journey of a climate refugee. He breaks it down into steps, from a person's loss of traditional land, communities, and livelihoods, to their migration to urban areas where they find the exploitative capitalist wage labor economy. Ultimately, Rashid's photographic documentation challenges his viewer to viscerally and emotionally recognize the pain of being torn from ones ancestral land and home to land neglected on the street. Rashid conveys the violence of climate change compounded by systemic urban poverty. His effort parallels decoloniality work by challenging the blind eye that the GN turns on the "inconvenient" personal realities of climate devastation and climate refugees.

Taiwanese artist Vincent Huang (2018) aims to draw attention to the consequences of climate change on low-lying islands and climate refugees with his sculpture *The White Bear's Claim.* The sculpture features polar bears in life vests aboard a floating block of ice and was installed in the water outside the Lanyang museum in Taiwan. Describing the project, Huang writes, "These symbolic refugees, forced to flee the melting ice, are a clear representation of global warming for animals and for humans, that encourage awareness of these issues." With the sculpture, Huang challenges people to think critically about anthropocentric thinking that discounts the impacts of climate change on non-humans, as well as the impacts on marginalized small island populations that risk losing their homes. Other works by Huang include a sculpture of a polar bear in a burger bun, a penguin shooting a "market bull," and penguins hanging in nooses from a bridge. The common thread among these works is the environmental devastation wrought by anthropocentric capitalist systems, and representation for those at risk of displacement and without a platform. Through his sculptures, Huang creates space that demands reflection on violence against those whose voices are excluded from the hegemonic discourse on climate change and politics.

Huang (2018) also designed a creative project for the Pacific Island nation of Tuvalu that involved planting a mangrove forest along the coast in the shape of a QR code (King 2016). Huang has worked with the Tuvalu government on past projects to raise awareness of the nation's vulnerability and represented the nation as an official delegate at UNFCC COP 18. The goal of the QR code project is for viewers to scan the mangrove trees and read about Tuvalu and worldwide climate change impacts. Huang notes that this is meant in part "to represent the ridiculous thinking about climate change… once Tuvalu is submerged, all waterfront areas will face the same crisis." Because QR codes are symbolic of capitalism and commerce, through this

project, Huang juxtaposes climate action with the economic system and culture responsible for climate change. Huang also challenges the perception that climate change is a problem for "others," the QR code shows that climate change, like technology, is a universally relevant force by connecting local and global climate impacts. Furthermore, by planting the mangroves, Huang and the people of Tuvalu exercise agency by shaping fortifying a stretch of coast against climate change damages (King 2016).

4. Interrupting and Reversing Slow Violence

Many GS climate artists use their art to do decolonial work of addressing the slow violence of climate change. These artists expose and challenge the coloniality of power as it manifests in 1) accumulation by dispossession—leaving the GS to pay the climate costs of GN's unsustainable growth and 2) silencing—to create victims of globalization rather than agents of change that threaten those unsustainable systems. Because producing climate art means rendering visible coloniality of power and staking a claim to the right to speak and make change, climate art work is a decolonial means to a decolonial end, inherently challenging the mechanism of silencing. In the works that follow, GS "artivists" challenge GN systems, knowledge, and relationships with nature and advocate for alternative ways of knowing and being in the world. Here, the call for responsibility, action, and change is ubiquitous.

4.A. Supporting Conversations on Global Solidarity

Gideon Mendel (n.d) is a white South African photographer from Johannesburg who focuses his work on raising awareness of the universal nature of climate change impacts (Mendel n.d.). He began photography in the 1980s, the final years of apartheid. He says that experience led him to identify as a "struggle photographer," dedicated to "responding to key global issues

facing his generation." Since 2007, Mendel has been working on the *Drowning World* film, photograph and advocacy project. His work presents narrative of climate experiences, and often features portrait style images set in extreme conditions such as floods and storms. This project has reached broad audiences. He has shown it at galleries, museums, and photo festivals, and GN climate organizations Greenpeace and Extinction Rebellion have used it in climate activism. Additionally, GN publications such as National Geographic, The Guardian Weekend Magazine, the Independent Magazine, the Sunday Time Magazine, Geo and Aperture Magazine have featured these photographs (Mendel n.d).

His series, *Submerged Portraits*, consists of portraits of people standing up to the torso or chin in floodwater, which he describes as a "conventional pose," in "catastrophic" conditions (Mendel n.d.). He writes that their direct, intentional gaze into the camera transforms them from "disempowered victims" to individuals with "agency amidst the calamity that has befallen them." The project includes "the UK (2007, 2014, and 2016), India (2007 and 2014), Haiti (2008), Pakistan (2010), Australia (2011), Thailand (2011), Nigeria (2012), Germany (2013) , The Philippines (2013), Brazil (2015), Bangladesh (2015), the USA (2015, 2017, 2018), and France (2016-2018)." Mendel notes that this project includes "...some of the poorest and wealthiest communities on the planet...the floods are a levelling factor, and people are brought together in visual solidarity." He writes that in the context of "ever-more aggressive denialism… [and a] global political system incapable of taking meaningful action," he feels "a personal responsibility to make this project speak as loudly as possible" (Mendel n.d.).

Mendel (n.d.) works in recognition of problematic global systems that reproduce inequities and injustice through climate change, and he portrays those affected in a way that represents their agency whether they are of the GN or the GS. Through his work he attempts to

universalize the urgency of the issue from an empowering context. His identity as a white South African adds complexity to his positionality on the issue. He is engaged in supporting the struggle of the GS, but as a someone with a white body still receives benefits from GN oppression and exploitation of the GS. This privilege likely gave him the mobility and status that has enabled his photography to reach such broad audiences through GN platforms. His collaboration with these GN organizations and institutions also shows that he is not focused on challenging coloniality of power.

Another example of GS climate art that crosses borders and aims to reach a global audience is Huang's (2018) mangrove project. His work addresses climate change on a simultaneously microcosm and macrocosm scale by pairing rising sea levels in Tuvalu with a QR code (universal in nature through the internet) that educates on global climate impacts. He points out the shortsighted nature of the GN failing to take responsibility and action for climate change, saying "…once Tuvalu is submerged, all waterfront areas will face the same crisis," By challenging narratives of GN immunity, he challenges the credibility of GN non-decision making.

4.B. Seeking feminist liberation and Forging Futures in North America

Fempower is a Miami based artist collective of queer, black, and brown anti-capitalist femmes who work to dismantle all types of oppression through "a mission grounded in radical feminist ideals and carried out through the power of community" (Martinez 2019). Much of the group's recent work deals with climate change impacts and connections to capitalism and U.S. historic legacies of racism and oppression. The group pursues their work through multiple channels in a non-hierarchical organization. Palestinian poet and activist Zaina Alsous runs a radical book club focused around themes like "…decolonisation, eroticism, mass incarceration,

and ancestral and environmental preservation" (Martinez 2019). Landscape architect Varela manages "the Femme Fairy Garden" where they practice sustainable climate resilient agriculture and herbalism. Another member, Rojas organizes music at parties and events. O'Brien and Peña organize the artists collective which has been centered around climate change lately (Martinez 2019).

During the Miami Art Week in 2018, Fempower presented an exhibition titled *2040,* based on a Miami dystopian climate reality (Martinez 2019). One piece of the exhibition was a fashion show for "the last generation" in a dying and underwater Miami, featuring neoprene suits, goggles, etc. to draw attention the way the altered environment will affect living conditions and eventually prohibit life. To emphasize the latter point, they also created the *Memorial to Mother Earth*, a burial mound with a seedling on each side, representing the last living seeds. Additionally, they presented films that showed possible climate effects, a showcase of the art work of several members of the collective, and a panel discussion of traditional farming techniques to combat climate change food insecurity. Their other long-standing climate resilience project is their defense of their low-income neighborhood, Little Haiti, against gentrification by developers who have identified it as one of the highest-ground areas in the city. As demonstrated here, Fempower uses a wide variety of creative projects and mediums to not only raise awareness of climate impacts and solutions, but also to actively advocate for justice and teach adaptation in their community alternatives (Martinez 2019). Their work is decolonial because in exercising agency, they highlight systems of oppression, and teach and enact sustainable

4.C. Decoloniality and Empowerment from Central and South America

Art Curator Josie Lopez challenged climate injustice through the exhibition *Puerto Rico: Defying Darkness*, in which she worked with Puerto Rican artists to show the impacts of hurricane Maria and contextualize it within the broader contemporary and historic patterns of colonialism and financial crises (Lopez 2018). Puerto Rico existed in a perilous situation even before the hurricane as a "non-incorporated" territory of the US barred from statehood, with ports restricted to US ships only, facing debt and energy crises. She notes that following the hurricane, it took a year to restore electricity, and issue of political power and not climate change. Artist Elsa María Meléndez emphasizes the power of art to critically elevate issues of injustice and trigger change, "Puerto Rico needs us artists to confront images, engage, resist and agitate, strengthen the questioning of power systems, and explore unfamiliar lines of thought" (Lopez 2018). Meléndez describes artists as "active agents of solidarity," and culture and art as "...tools for human beings to reconstruct themselves." The artists and curators for this exhibit aim to challenging systems of violence and oppression in a way that builds hope, supports recovery, and celebrates the resilience of Puerto Rican people (Lopez 2018; Parazzoli 2018).

Artwork from the *Puerto Rico: Defying Darkness* covers multiple dimensions of Puerto Rican struggles of disaster recovery and coloniality (Lopez 2018). Myritza Castillo's photography series, *Territorial Landscapes,* shows abandoned US military bases to depict imperial power dynamics, abandonment, and costs forced onto the island. Artist Adal's photography series, *Puerto Ricans Underwater*, deals with "the sense of denial of self-determination" that emerges from the island's marginalized political status. Works by Ho Cosme, Rafael Trelles, and Patrick McGrath Muñíz deal with the failings of local and national hurricane relief responses. Meléndez, Rosado-Seijo, and Ramon Bonilla all deal with concepts of recovery and resilience, while similarly, Bonilla's work "reimagines architectural spaces as a

way of looking to the future," by "reinterpreting place, landscape, architecture, the environment, and the use of resource" (Lopez 2018). Together, these artworks portray dual slow-violences of territorial status and climate change vulnerability, while also claiming power to forge alternative futures.

Like many of the *Puerto Rico: Denying Darkness* artists, Columbian/American artist Jamie Martinez works with the idea of art as a site for healing and activism (Brady 2019). Martinez immigrated to Florida at the age of 12 and is now the founder and director of The Border Project Space, an art gallery where he curates art shows featuring mostly immigrant artists. His goal is to create a space where immigrant artists can meet and grow through collective empowerment. He focuses on climate change in a lot of his personal art because, as he states, "I believe that we have to protect and take care of Mother Earth… Change has to come, and as an artist, I feel a need to say something." He points out the enormity of what is at stake, and that artist can play an important role in helping the public conceptualize the issue and inspiring the young to protect the planet. His perspective on what is at stake, and the role of artists in instigating conversation and broader scale change parallels that of Puerto Rican artist Meléndez. His work with project border space is decolonial in that it empowers immigrant artists by giving them a space to come together and express themselves, and his personal work aims to inspire an ethic of caring for the planet.

4.D. Indigenous resistance and regeneration

Many of the indigenous climate artists whose work I came across in this research call out the violence of GN coloniality, capitalism, and relationships with land. These artists assign responsibility to the GN for the slow violence of climate change and call for the GN to transition

to more ethical relationships. Some also call for a united front of resistance, indigenous resurgence, and/or epistemological liberation in their discussion of climate change solutions.

The poem and short film *Rise* is an example of GS climate art that mourns climate impacts, calls out systemic oppression, assigns responsibility to the GN, and call the audience to action (Jetñil-Kijiner and Niviâna 2018). The poem is a collaboration by Kathy Jetnil-Kijner from the Marshall Islands, whose home is being submerged due to sea level rise, and Aka Niviâna from Greenland, an Inupek whose home is on collapsing land. The poets collaborated with GS filmmakers to create the film that captures Jetnil-Kijner, dressed in white, and Aka Niviâna, dressed in black, as they stand together to recite their poem on top of a melting glacier on the Greenland ice sheets, interspersed with shots of their homes and communities (Jetñil-Kijiner and Niviâna 2018).

Jetñil-Kijiner and Niviâna (2018) speak to the long history of violence that colonizers perpetrated against their marginalized home communities in the forms of bulldozed reefs, nuclear waste, and silence to the GN's indulgence in capitalist and war-mongering pleasures at the expense of their island communities' suffering. They call out people of the GN for creating a climate discourse that perpetuates these legacies of violence by labeling climate change an "inconvenient truth" and focusing on threats to GN communities that lie decades out, "You think you have decades/ before your homes fall beneath tides?/We have years./We have months/ before you sacrifice us again/before you watch from your tv and computer screens waiting/to see if we will still be breathing/while you do nothing" (Jetñil-Kijiner and Niviâna 2018). The two poets call for GS solidarity in the face of climate change violence, "On our journey/may the same unshakable foundation/connect us,/ make us stronger,/ than the colonizing monsters/ that to this day devour our lives/ for their pleasure./ The very same beasts/ that now decide,/ who should

live/ who should die…our lives matter more than their power" (Jetñil-Kijiner and Niviâna 2018). Throughout their poem, they remind their audience that these issues affect everyone, but their focus is on the power of the GS and importance of unity and co-resistance to systems of oppression.

Scholar Julie Sze's (2015) academic writing brings the Kivalina project into academic discourse on activism, slow violence, and decoloniality. She writes that by centering Kivalina experiences and self-determination, the Kivalina Re-Locate project functions as decolonial work by giving back power and voice, in contrast to many relocation projects that push GS knowledge to the side and center "western science, discussions of technical solutions, and future forecasting" (106-107). Because of its high-visibility and collaborative nature, the Re-Locate Kivalina project creates an opportunity for people of the GN who bear responsibility to recognize the experiences and perspectives of low-visibility communities facing the worst impact of climate change, and the "politics, culture, and histories of exploitation" that created these inequities (116). The decolonial visualizations created by Re-Locate Kivalina may lay the groundwork for global support of local communities in need because it generates visibility and empathy, and such recognition is a precursor to action and justice (106-107).

Sze (2015) writes that furthermore, the Re-Locate Kivalina archive is a tool to "…transform *information* from that hidden away binder…into a more active and public tool that can be applied to the local and indigenous inequalities of agency, impacts, and vulnerabilities related to climate change," and that the processes of collaboration and sharing function as social art (114-15). In this way, the project not only raises awareness among the GN audience, but also creates a platform for GS social arts of collectively responding to climate change. It opens

avenues for collective documentation and learning, and networks of solidarity and self-determination among local communities facing re-location.

Contrastingly, Dr. Craig Santos Perez (2017) *Poem of Love in Times of Climate Change* focuses on focused on socio-ecological dimensions of climate change impacts and action. Dr. Perez is an indigenous Chamoru (Chamorro) from the Pacific Island of Guåhan (Guam) and a poet, scholar, editor, publisher, essayist, critic, book reviewer, artist, environmentalist, political activist, and professor of English at the University of Hawai‘i, Mānoa (Perez n.d.). In his poem, he writes of his love for the Earth that exists outside of precious minerals and oil that trigger violence. He writes that he loves the Earth as a vulnerable thing upon which future generations depend, and advocates for a more positive relationship planet, “I love you this way because we will not survive one way or another, /except in this form in which human beings and nature are relatives,/ so close that your carbon emissions are mine,/ so close that your sea rises with my heat” (Perez 2017). His commentary on the importance of realizing interconnections and a loving relationship shows his perspective that to address climate change and secure a livable future global society needs to transform its ways of knowing the environment. By contrasting relationships of extractive capitalism with his own loving relationship with the planet, he makes it clear that this is not a problem of his culture but of dominant GN culture (Perez 2017).

Metis artist Christi Belcourt and Anishnaabe artist Isaac Murdoch also highlight the need for the GN to transition from violent extractive capitalist relationships (Heidenreich 2018). The two created a large painting at MacEwan University’s Indigenous Centre, a university in an intensively fossil fuel extractive region, to draw attention to the threats of tar sands and climate change to water and life. This painting is one in a series as they tour across Canada to raise awareness of climate change and water issues. The funds they raise are going toward indigenous

resurgence, specifically, to a language and culture camp where indigenous youth can share and learn the traditional knowledge of their culture, a more ethical way of knowing and being (Heidenreich 2018).

In her interview, Belcourt asserts that life on earth depends on a transition from current systems, "I don't think there's a way to soften the message, the message is that we need water for life, that the tar sands expansion is one of the worst ecological disasters on the planet. It is contributing to global warming, it's contributing to the death of our species and all other species and we need to stop that" (Heidenreich 2018). The two artists are also spreading awareness of indigenous knowledge as a solution to climate change and global change. According to Murdoch, "Within indigenous language and within Indigenous knowledge, it contains how to live in perfect balance with the planet." He points out the trend of people worldwide acknowledging the power of Indigenous knowledge to create a more balanced relationship of society and nature. Similarly to Huang (2018), and Jetñil-Kijiner and Niviâna (2018), he points out that this isn't "an Indian thing" and that everyone must come together to address the problems humanity faces (Heidenreich 2018). Like the artists here, these artists exercise agency and challenge coloniality by raising awareness of the violence of the status-quo, and promote regenerative alternatives for a better future.

The Water Song, created by Irene Wawatie Jerome, an Anishnabe/Cree, is another example of indigenous elders working to raise awareness and spread indigenous ways of knowing through art. Wawatie Jerome created *the Water Song* to engage women throughout the world as protectors of the water for future generations. The goal is for millions of women to eventually take one minute a day to sing the song, and as they do so, to bring about a spiritual and environmental shift. The *Water Song* website reads, "Our water is under siege from

pollution, climate change, mismanagement, and corporate environmental disaster, Without clean water, we cannot live" (Sing the Water Song n.d.). To spread the song, indigenous elders worked with filmmakers to create a short film of women singing the song, and explaining its significance and purpose; shots of the women singing are interspersed with shots of their water and land. Through this song, indigenous elders claim power by working to spread their traditional knowledge, values, and relations with the land, raising awareness, and inspiring action by building a global network.

5. African Climate Art: A Gap in This Review

One serious gap in my literature review that I would like to acknowledge is that I was not able to find in-depth coverage of GS climate art emerging from the African continent. I found many passing references to climate art from the GS on GS media websites, but not any coverage thorough enough to write about in an informed manner. When I searched the names of artists or projects based on news references, I was not able to find artist or organization webpages that covered their climate art. I imagine there are several reasons for this gap in my findings, including issues with my search terminology, language barriers, or barriers to African GS artists that prevent their use of internet platforms.

6. Conclusion

Climate change art in and of the "GS" is enormously diverse, emerging in abundance from all continents. GS artists document their places and cultures in the face of climate change pressures that change landscapes, livelihoods, and in some cases, force relocation. In many cases, such as the Re-Locate Kivalina project, communities use this documentation to raise global awareness of their struggles and what is at stake, and to create space for global solidarity among

GS communities facing displacement. People of the GS also use climate art to explicitly and implicitly identify and resist the forces of coloniality that are omnipresent on GN-GS relationships and perpetuate the injustice of inequitable climate change impacts. Furthermore, there is a growing movement emerging from indigenous communities to subvert GN systems of exploitation and spread in its place regenerative and ethical relationships among people and environment, on the basis that a modern solution will not solve the problem of climate change. Ultimately, GS climate artists break climate silencing—they disrupt coloniality of power by taking space to represent climate injustice, challenging the concealment of the systems responsible, and posing alternatives to violent GN ways of knowing and being. In this way, GS climate artists seek epistemological liberation—they are resisting for climate justice as well as "global cognitive justice" (Santos et al. 2007) and the right to build better worlds.

CONCLUSION

The crisis of climate change is one that demands urgent and transformative action. However, at present, climate politics in the U.S., as well as many other countries, are defined by inaction (Conway and Oreskes 2010). This is largely because the elite groups of decision makers controlling climate discourse are shielded from the worst impacts of climate change because current systems intentionally privilege them. Because of their attachment to extractive capitalism, this elite group stands to personally lose more by changing the current system than they stand to gain from climate action. To prevent climate action, or at most limit it to technological fixes that fit within capitalism and western science, this elite group has used epistemicide to subvert pollical will for climate action. By privileging western "science" and "rationality" and exercising doubt-mongering, U.S. politicians have caused confusion and a sense of underqualified helplessness in the American public, causing widespread climate silence. Through a culture that discredits youth knowledge, and a political system that favors wealthy old white men, the elite silence future generations whose entire lives will be shaped by climate change and are therefore calling for radical and immediate transformation. This elite also silences the GS, those engaged in resisting coloniality and forging alternative futures, by subjugating GS epistemologies and forcefully excluding or misrepresenting their voices in mainstream climate discourse. I argue that climate art may be a mechanism through which youth and GS populations can disrupt coloniality of power by decentralizing climate discourse.

Climate art engages affective and personal climate communication, thereby reclaiming the validity of non-scientific climate knowledge in climate discourse. To members of the American public who receive climate art, it thereby opens a culturally accessible channel through which to understand the immediacy and personal relevance of climate change. In making climate

change accessible, climate art supports dialogic, deliberative processes (Galafassi et al 2018) that bring the issue to the front of peoples' minds and creating space for reflection on causes, responsibilities, and non-traditional possibilities for transformation (Miles 2010, 32; Kagan 2015, 2; Nurmis 2016, 511). By foregrounding climate change and creating space for processing, discussion, and non-conventional problem solving among the general public, climate art decentralizes climate discourse. Effectively, climate art may encourage the American public to reclaim their right to shape politics, to demand responsible climate decision-making and participate in the imagining of climate solutions and futures by constructively disrupting the receivers perceived epistemological inferiority and helplessness.

While the potential impacts of climate art on the American public as described by scholars are hopeful, there are still significant gaps that merit further exploration. Namely, I did not come across much discussion on the significance of who creates the climate art, and therefore whose voices it foregrounds. If climate art is a highly impactful tool, it matters whose perspectives and messages it is causing the public to engage with. People of the GS and youth are two groups highly affected by climate change, in varying ways, they are silenced by current dominant systems. Through my research, I found that both groups are actively engaged in disrupting this silencing, and climate art is one avenue through which this disruption takes place.

Over the course of 2019, youth climate activism around the world has grown exponentially. On Friday, September 20th, youth climate activists mobilized over 4 million people, making it likely the largest climate rally ever (Huak 2019). For over a year now, youth around the world, inspired by Thunberg, have been creating space to speak on climate by striking from school on Fridays to sit in front of government buildings, demanding climate action. Such

tactics are important for youth because they are systematically denied political power, yet today's political decisions on climate change will define their lives.

Through my research with CSC student artists, I found that some college students are unable to achieve the level of activism and engagement with climate change that they would like due to the constraints of academic and work schedules. However, these students expressed that CSC art projects made space for them to both intellectually and affectively grow their understandings of climate change. Further, CSC spaces empowered these students by helping explore communication strategies to support others in engaging with climate change, and by providing a supportive community environment for sharing and learning. In this way, CSC parallels the youth empowerment of Fridays for Future strikes by disrupting academic curriculums to make space for students to process and respond to climate change, and to learn while making an impact through hands-on experience with climate communication. I argue that this space-making work is important because climate change will shape youths' futures; they have a right to understand the threat, learn the tools to address it, and have their voices heard. This space making resists the coloniality of knowledge and power that dismisses affective and creative climate understandings, and oppresses the political power of youth. CSC space making nurtures the cultural power of youth. (leave this out if you don't agree!)

Similarly, I argue that GS climate art creates space for GS voices to speak on climate change. People of the GS are some of the most affected by climate change due to geography as well as coloniality of power that manifest in the slow violence of systemic poverty, heightened climate change vulnerability, and silencing that suppresses challenges to the systems responsible (Nixon 2011). At present, scholarly discourse and mainstream media portrayal of climate art reinforces the slow violence of climate change by largely ignoring GS artists who render visible

GS suffering, the systems and institutions at fault, and alternatives that would disrupt coloniality of power and enable more just socio-ecological relationships, systems and futures.

For climate art to most effectively support climate engagement and justice, the work of youth and GS climate artists must take center stage, as these populations are among the most impacted. With this shift, climate art may drastically transform climate discourse on a global scale by putting GS and youth artists into conversation with the GN public. Through this conversation, GS and youth art may reverse the slow violence of climate change by conveying messages that make climate reality concrete, immediate, and personal, and suggesting radical alternatives to an engaged audience. Because art can trigger visceral responses, foster culturally accessible and dialogic engagement, and inspire openness to non-traditional possibilities, these conversations may cause the general public to recognize and contribute to dismantling the systems responsible for the slow violence of climate change.

Therefore, I argue that if the American public can respectfully receive and foreground youth and GS climate art, it may empower and build solidarity among GS, youth, and general public populations. Through discussion and action, these groups may decentralize climate discourse and potentially future decision-making, thereby disrupting coloniality of power and capitalist systems responsible for climate injustice and creating more equitable futures.

This exploratory research contributes to thinking about possibilities for transformational climate responses by bringing together individual level climate communication concerns—particularly psychological and behavioral dimensions—with societal level justice concerns. Under the umbrella of decolonizing climate discourse, it draws parallels between the psychology and politics of American climate silence, the discounting of the voices and rights of future generations, and the systemic oppression of GS epistemologies. In identifying coloniality of

knowledge as a common theme among these forms of climate silencing, I suggest decoloniality, epistemological liberation, and climate art as avenues for disrupting climate silence and pursuing climate justice.

Appendix A

Dear Climate: Assessing Community Engagement with Public Art as an Approach to Climate Communication

Chloe Fishman, Department of Sustainable Development Honors Thesis

Climate change is arguably the most acute existential crisis of our time because it is deeply interconnected with the health of all present and future human-natural systems. It then follows that "how do climate thinkers and activists better respond to and communicate climate change?" is one of the most pressing questions. For many, climate thinkers and activists, this issue simultaneously poses an intellectual puzzle of uncertain thresholds and infinite interconnections, and an immense emotional challenge. Recently, climate communication scholars have recognized the inadequacy of current approaches and called for practitioners to increase their use of creative mediums in outreach (Galafassi et al. 2018). Through my thesis, I will examine the power of art to create emotional and personal connection that drives transformation of perspective on, and motivation to address climate change.

My research will center on the Climate Stories Collaborative's (CSC) project with the artist collective Dear Climate, which is a public art installation on Appalachian's campus. The installation consists of a series of signpost trail markers with evocative fragments of language gleaned from a wide variety of climate-focused scholarly texts from many different disciplines.

To first create context, I will work on a literature review throughout the summer that encompasses four main topics. First, I will discuss climate communication in terms of status, trends, and public opinion (e.g. Yale climate survey results, youth movements, climate emergency declarations). Second, I will cover research on the role of creative practice in climate communication and include case studies on climate art efforts. In particular, I will focus on how the climate arts (visual and performance media) can break down the psychological barriers blocking an understanding of climate change and forge an emotional connection and motivation to act. Finally, I will put this research into conversation with the scholarly texts behind the language for three of the art installation signposts.

My thesis will include the following parts: 1) a community engagement event I will coordinate in collaboration with CSC co-facilitators, which will take place the first weekend of October. This guided tour of the Dear Climate signposts will feature faculty scholars (who will hopefully each have a student partner) as interpreters. The audience will travel through the trail system and stop at each signpost where our interpreters will facilitate meaningful engagement with the signpost language and the scholarly texts from which it derives; 2) a brochure with blurbs from the interpreter which CSC will make available for self-guided tours of the installation; 3) research: audience surveys and interpreter interviews addressing the question: "How and why does climate art influence people's perspective of and responses to climate change?"; 4) an article for Yale Climate Connections about my experience as a student involved in campus climate work, including this project; 5) a thesis paper that summarizes and interprets the former components within the context of relevant scholarly works from my literature view. Finally, I will present my thesis at a departmental seminar in December.

My research will focus on assessing the event providing a guided tour of the art installation. The event includes two groups of research subjects: 1) signpost interpreters (each signpost will have a faculty-student team that will lead discussion of the signpost language), and 2) audience members (including students, faculty, staff, and broader community members). To address my research question, I will engage in the following activities:

3. First, I will interview five of the signpost interpreters, the students and professors who will guide discussion at each signpost. The interviews will focus on interpreters' perspectives on climate communication, their personal experience of the event, and their perspective on their audience's experience.
4. Second, I will conduct an anonymous (no identifying information will be collected) survey of 20-30 participants of the guided tour. The survey will assess their perspectives on climate change and their experience of the event.

Project Timeline

- Summer: Conduct and write up literature review, focusing on how the arts are helping to shape and shift the climate change conversation and culture. Include some focus on the role of public arts installations. Note: this writing will ultimately be woven into your thesis introduction and discussion.
- July: complete CITI training/certification and work on research proposal, survey and interview questions
- August 1st: Submit for IRB approval
- By the end of August: Once Dear Climate provides final signpost language, work with Climate Stories Collaborative co-facilitators to identify whom we will recruit as signpost interpreters. Select three signposts and review the scholarly texts behind their language.
- August: Finalize the event date and details. Recruit all scholar interpreters and provide instructions related to their role at the event and their synopsis for the brochure.
- September: Create brochure that introduces the installation and includes a synopsis from each interpreter so that those who do not attend the event have the option of doing an in-depth self-guided tour and write up….
- First weekend of October: Hold community engagement event. Conduct survey/interviews to collect participant responses. Begin analyzing responses.
- November: Finish analyzing responses and work on thesis paper. Write reflection piece for Yale Climate Connections.
- Early December: Complete thesis paper and present work in departmental seminar

Appendix B

Student Artists: Majors, Climate Stories Projects and Courses

Student	**Major**	**Climate Stories Project Title**	**Program for Associated Course**
Anna Preston	Graphic Design	*Chief Albert Naquin*	Sustainable Development
Anna Preston	Graphic Design	*What You Eat Matters*	Art
Marcy Vartanian	Journalism and Apparel Design	*Tangier Island: The Disappearing Island*	Journalism
Marcy Vartanian	Journalism and Apparel Design	Unknown	Apparel Design
Dustin Hicks	Sustainable Development	*It Spreads Like Wildfire*	Anthropology
Annie McGehrin	Sustainable Development	*Home of the Blue Bloods*	Sustainable Development
Annie McGehrin	Sustainable Development	*Climate Pacman*	Art
Amerity Head	English	*Goodbye Sunshine*	Theater
Kimberly Todd	Biology	*The Plight of the Bees*	English

Appendix C

Student Artist Interview Questions

1. Describe the project you created for the Climate Stories Showcase?
    a. how did you decide on this particular focus?
    b. What made you want to tell this particular "climate story"?
2. Have you completed school projects related to climate change in the past? Have you completed CREATIVE projects related to climate change in the past?
    a. If so, was this experience different for you?
3. What moments or aspects of your creative process (including the creation and the sharing?) for this project stand out?
    a. How did you feel when you created your piece?
    b. In what ways was the creation of the work challenging?
    c. In what ways was the creation of the work rewarding?
4. Did this project cause you to engage with any ideas or perspectives that you had not previously?
5. How did you feel when you shared your work with a public audience?
6. In the last six months, have you participated in any climate activism or advocacy activities? (climate action other than lifestyle changes)
    a. If so, please describe these activities.
7. Do you think that engaging with climate using creative expression (in the Showcase) influenced your climate action activities or other responses to climate change? If so, how and why? If not, why?
8. Having participated in the Showcase, what are your thoughts on creative expression as an approach to communication about climate change?

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